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Dynamics Explorer 1, Retarding Ion Mass Spectrometer Summary Spectrograms—81/280 to 81/365 Spin-Time Spectrograms for H^+, He^+, O^+, N^+, O^{++}, M/Z=2, and Molecular Ions

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NASA TECHNICAL MEMORANDUM

DYNAMICS EXPLORER 1, RETARDING ION MASS SPECTROMETER SUMMARY SPECTROGRAMS

81/280 TO 81/365 SPIN-TIME SPECTROGRAMS FOR H^+, HE^+, O^+, N^+, O^{++}, M/Z=2, AND MOLECULAR IONS

I. INTRODUCTION TO THE DE MISSION AND THE RIMS INSTRUMENT

The introductory material is taken, in part, from the following sources:

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A. DESCRIPTION OF SPACECRAFT

On August 3, 1981, a Delta rocket launched from Vandenberg Air Force Base successfully placed the two Dynamics Explorer (DE) spacecraft into coplanar polar orbits. The purpose of the mission was to acquire data relevant to processes coupling the magnetosphere, ionosphere, and upper atmosphere. The two spacecraft were manufactured by the Government System Division of RCA, and the instruments were provided by various principal investigators. A complete description of the mission, spacecraft, instruments, and ground data systems appears in an issue of *Space Science Instruments* (Volume 5, pp. 345-573, 1981), edited by R. A. Hoffman. The high-altitude satellite, DE 1, carried an auroral imager and detectors designed primarily for field and particle measurements. The low-altitude satellite carried more aeronomic-type instruments. The orbits of the two satellites remained very nearly coplanar during their joint lifetimes, providing the unique opportunity to acquire data at two altitudes along common magnetic flux tubes. DE 2, operating at ionospheric altitudes, re-entered the atmosphere in February 1983. DE 1 ceased data collection operations in March 1991.

Both spacecraft were power limited and considerable effort was expended in selecting portions of orbits for maximum science return. DE 1 had a duty cycle of nearly 90% during the early portion of the mission, but in general varied between 16-55%. DE 2 had a duty cycle between 16 and 36%. Times of magnetic conjunction between the spacecraft, or between one spacecraft and a collaborating ground observatory, were given high priority. Also, data acquisition during passages through geophysical regions like the dayside cusp and plasmapause WAS emphasized.

B. ORBIT INFORMATION

The DE 1 satellite, carrying the RIMS experiment, was launched into an elliptical polar orbit on August 3, 1981. The ~7.5 hour orbit has perigee of 675 km altitude and apogee of 24,875 km altitude. The orbit plane drifts westward at a rate of ~1 hour MLT every 15.4 days (24 hours in 12 months); the orbit line of apsides drifts about 0.328° geographic latitude each day (moving from one pole to the other in 18 months). Thus, the orbit which started in the dawn-dusk plane with apogee over the north pole precessed to noon-midnight, with apogee over the midnight equator by the spring of 1982. The apogee continued to sweep around in latitude, bringing its position over the south pole during the summer of 1983, the noon sector equator during the spring of 1984, and returned to approximately its original position during the winter of 1984.

Note that while the DE 1 orbit provides coverage for most all local times and latitudes out to the apogee at 4.65 R_E, the 3 to 1 ratio between the drift of the line of apsides and the westward drift of the orbital plane results in uneven coverage in local time for a given altitude. In particular, in the 12-18 hour magnetic local time sector, the higher altitudes in the auroral latitude region were not fully sampled.

The spacecraft spins in a reverse cartwheel mode, at 10 rpm with its spin axis perpendicular to the orbit plane. The spacecraft orbital-plane is roughly coincident with the magnetic field meridian plane so that the radial head (mounted perpendicular to the spin axis) responds to ion fluxes for nearly the full range of magnetic pitch angles (-180° to +180°).

C. DESCRIPTION OF THE INSTRUMENT

The Retarding Ion Mass Spectrometer (RIMS) experiment onboard the DE 1 satellite was designed to perform energy and mass-per-charge analysis on low-energy ions (<50 eV) with mass/charge ranging from 1 to 40 amu/Z. The instrument is fully described by Chappell et al. (The Retarding Ion Mass Spectrometer on Dynamics Explorer-A, *Space Sci. Instrum., 4*, 477, 1981). RIMS has significantly improved capabilities over previous retarding potential analyzer instruments (RPA) by providing ion mass/charge separation so that RPA and spin curves are obtained separately for each programmed species. These enhanced instrument

capabilities, combined with the DE 1 orbit, produced a unique opportunity to investigate the variable dynamics and composition of the low-energy ion population in the near-Earth space environment.

DE 1 RIMS consists of four instrument assemblies interconnected to form one experiment. Three of the assemblies are sensor heads and one is the central electronics assembly. The three heads are labeled according to the mounting axis on the DE 1 spacecraft: Radial, +Z, and -Z. The radial sensor views perpendicular to the spacecraft spin axis, while the ±Z sensors on the ends of the spacecraft view parallel and anti-parallel to the spin axis. The central electronics assembly (CEA) provides the spacecraft interface, all data processing, command decoding, and complete timing control of the entire RIMS experiment.

Each sensor head consists of an RPA followed by a magnetic mass analyzer with two separate exit slits corresponding to two mass/charge ranges in the ratio 1:4. The total mass/charge range covered is 1 to 40 amu/Z. Surrounding and attached to the entrance of the sensor head is a 20-cm circular aperture plate. The plate is connected to a relay which can, on command, connect to either spacecraft chassis ground or to the aperture potential power supply output. The aperture potential power supply can be set by spacecraft minor mode A command to 0, -2, -4, or -8 V to partially compensate for a non-zero positive spacecraft potential.

The retarding grid of the RPA is connected to the retarding potential power supply through a shielded conductor. The retarding potential may be set to any one of 1024 linearly spaced steps from 0 to +51.125 V with a resolution of 0.05 V. The RPA collector plate is connected through a co-axial cable to a 5-decade logarithmic amplifier. The reference voltage for the front end of the log amp is the output of the aperture potential power supply. The output of the log amp is converted, by command from the CEA, to a 10-bit digital word using an analog/digital (A/D) converter. The digital word is held in a holding register until the CEA is ready to read and process the data.

Those ions passing into the Ion Mass Spectrometer (IMS) are sorted according to their mass to charge ratio. The proper combination of ion accelerating voltage, applied magnetic field strength, and ion beam gyro radius in the applied magnetic field determines the mass/charge of the ion focused on each collector slit. Varying the ion accelerating voltage varies the ion mass/charge detected. Ions of mass/charge 1 to 8 amu/Z and 4 to 32 amu/Z can be focused on the low and high mass slits, respectively. Ions exiting the collector slits are counted by channel electron multiplier (CEM) detectors. The ion mass/charge range is also programmable by a minor mode command. Any 32 of 4096 voltage steps may be selected. All 32 steps may be the same, in which case the mass/charge analyzer will be locked onto a given pair of mass/charge peaks having the ratio 1:4. The two-channel IMS uses CEMs as detectors. The two CEMs in each sensor head are powered by a single multiplier high-voltage power supply which can be set, by spacecraft minor mode A command, to any one of four voltages, -1200, -2100, -2400, and -2800 V. The IMS accelerating voltage comes from a swept high voltage power supply that can be addressed to any one of 4096 linearly spaced steps between 0 and -2250 V.

The output of each detector is connected to a charge sensitive pulse amplifier whose output is sent to a level detector. The discrimination level is set by spacecraft minor mode A command. Pulses from the discriminator are coupled to an 18-stage binary counter. Four bits of the counter are located in each head, and the other 14 bits of each accumulator are located in the CEA. The CEA contains the circuitry for compressing each accumulator output into a 10-bit base 2-floating point number (6-bit mantissa and 4-bit exponent) for output into the telemetry buffer.

The DE spacecraft utilizes a pulse code modulation data system with 128, 8-bit words at a main frame rate of 16 frames per second. Note that the RIMS instrument is assigned 26 of these 8-bit telemetry words. One 8-bit word is reserved for status information, five groups of 5 8-bit telemetry words each are used for measurements – where each group is considered a telemetry channel by the processor. With this convention, each telemetry channel can contain 4 each 10-bit instrument words. Each data sample represents a period of 1/4 minor frame (1/64th of a second, or 15.625 msec.) Each RIMS sensor head has three data outputs, the RPA and high and low mass IMS channels, and therefore outputs 9 measurements each 1/4 frame for a total of 36, 10-bit instrument words per telemetry minor frame. Since the 40-bit telemetry channel can contain only 4, 10-bit instrument words, only 20 of the 36 instrument words may be loaded into the telemetry channels each telemetry frame (4 instrument words x 5 telemetry channels). The telemetry channel assignments, number of words assigned to each, and their content are as follows:

A	1	Housekeeping and status
B	5	Radial IMS low-mass channel accumulation
C	5	Radial IMS high-mass channel accumulation
D	5	Alternates each 1/4 frame between +Z IMS low & high-mass accumulation
E	5	Alternates each 1/4 frame between -Z IMS low & high-mass accumulation
F	5	Alternates each 1/4 frame between radial, +Z, and -Z RPA (electrometer) accumulation

The instrument cycle is 32 data samples from each data source. The RIMS completes one instrument cycle each 0.5 sec. Each data sample represents a period of 15.625 msec. This interval consists of a measurement interval and a data processing interval. During the measurement interval, the IMS accumulators are active for a period of 12 msec. The 3.625 msec data processing interval is used to process the data accumulated during the measurement interval and to establish the mass/charge voltage and retarding voltage for the next integration period.

The RIMS instrument continued to return usable data until the end of the DE mission in March 1991. The radial head RPA failed on 81/329 19:50:18. It worked again between 82/045 23:30 and 82-046 06:15 before failing again. Sometime before 82/046 the -Z head

aperture bias mechanism failed. At launch the -Z head was found to be biased -2 V with respect to the other two heads. The anomaly disappeared on day 73 or 74 of 1982. The Z heads show spin variation primarily at low altitudes in cold, dense plasmas at high spacecraft velocities. For a more detailed and complete account of RIMS performance characteristics, see Olsen et al., DE-1 RIMS Operational Characteristics, NASA TM-86527, 1985.

The RIMS instrument data was provided by GSFC to ES53/MSFC on 1600 BPI magnetic tapes. The RIMS data was extracted and combined with orbit/attitude and magnetic field data to produce mission analysis files (MAF) and summary spectrograms. There is usually one MAF file per pass (RIMS instrument on/off time). Each MAF file data record consists of 8 seconds of RIMS data (512 samples per channel, each sample 1/64 sec measurement), in time order. One MAF record is 5624 bytes in size. The first 100 locations (16-bit words) of this record contain timing, orbit/attitude, B-field, and instrument mode information. Since the instrument mode takes some logic to decode, subroutines are available that perform the decoding of the instrument flags, determination of RPA/IMS settings for any sample through the 512, and decommutation of the D and E channels (Z-head data).

Data quality is, in general, excellent. Data are not always recorded at altitudes down to the DE 1 perigee of 675 km. At the lower altitudes, the plasma density can be quite high and the RIMS instrument is generally shut off to protect the particle detecting CEMs from excessive counting rates. However, on occasion, saturation of the detecting CEMs may be seen in the radial head data during low altitude-high density passes.

Detection of very low-energy ions is made difficult by the presence of floating spacecraft potentials. Analysis of RIMS data by Olsen [1989] established a density-potential relationship, such that the satellite accumulates positive charge on entering density regions below 1000 cm^{-3}, rising slowly to about +1 V at 100 cm^{-3}, and about +5 V at 10 cm^{-3}. By preventing measurement of the coldest plasma components, this potential can mask out an isotropic background plasma or, when the potential is sufficiently high, can give the appearance that no cold plasma exists in a region. This effect is known to be a concern in the plasmapause and trough region, where densities are of the order 7 to 70 cm^{-3} and the spacecraft may reach potentials of +2 to +5 V [Olsen, 1989]. At altitudes above the ionosphere in the polar regions, densities again can be sufficiently low that observation of ions of classical polar wind speed is possible only during negative aperture bias instrument modes [Nagai et al., 1984].

The DE 1/RIMS team has attempted to compensate for the spacecraft charging by the addition of a voltage bias plate at the entrance aperture of the instrument. The diameter of the external aperture plane is 20 cm, which may be compared to the spacecraft dimension of one meter in height and 1/4 meter in diameter. The instrument retarding voltages are referenced to this aperture plane, so that to the RIMS detector the effect of the bias is similar to a change in spacecraft potential, though sheath effects can complicate the interpretation of the resulting data.

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II. Description of the RIMS Summary Spectrograms

The summary spectrograms included in this volume consist of seven spin-angle versus time panels; one panel for each of the seven mass/charge settings, H^+, He^+, O^+, N^+, M/Z=2, O^{++}, and molecular ions. Noted at the top of each spectrogram is the date and time interval covered by the spectrogram, the instrument head, and indications of the RPA and aperture bias sort used. In this set, data were included regardless of RPA or aperture bias setting. Orbit parameters – geocentric altitude, McIlwain L-shell, magnetic local time, magnetic latitude, and invariant latitude – are given at 40-min intervals at the bottom of the page.

The panels are labeled with mass designations (i.e., L/H^+ for low mass channel, ionized hydrogen). Please note, however, that the data plotted represent the response of that RIMS channel to a specific range of mass/charge settings.

The satellite ram direction is defined to be along the center of each panel, meaning the point at which the radial detector was viewing into the direction of motion of the spacecraft. The maximum (180°) and minimum (0°) magnetic pitch angles are indicated by the black dashed and dotted lines (nearly horizontal, for the most part), respectively, corresponding to closest aperture approach to the parallel and anti-parallel directions of the Earth's magnetic field.

The data arrays used to construct each panel consist of 120 time divisions and 32 spin angle divisions. Since each spectrogram covers an 8-hour period, including a single 7.5-hour spacecraft orbital period, each angle/time bin represents a data average over 11.25° in spin angle and 4 minutes of accumulation time. That is, the counts-per-accumulation periods (12 milliseconds), for all RPA and aperture bias settings, are averaged over the 4-min time resolution period for each 11.25° spin angle bin.

The counts-per-sample for a given spin angle-time bin is coded by vertical lines; one solid vertical line representing low counts (0 to 1 count/sample) and many closely-spaced vertical lines (approaching solid black) representing higher count rates (>5000 counts/sample). A dotted vertical line represents an angle/time bin for which sampling occurred, but no counts were registered. No vertical lines at all indicates that sampling for that ion was not performed. The squares arranged vertically to the left of the spin angle-time panels show this scale.

The counts-per-sample is proportional to the integral directional ion flux for the energy range 0 to 50 eV with approximate conversion ratios of counts to integral flux of 3.1×10^4 (particles/cm^2·s·ster)/(counts/sample) for H^+, 1.9×10^4 (particles/cm^2·s·ster)/(counts/sample) for He^+, and 4.4×10^4 (particles/cm^2·s·ster)/(counts/sample) for O^+. These factors, which reflect the mass-dependent angular response, are based on pre-flight and in-flight calibration; the ratios are time-dependent due to on-orbit CEM degradation and are offered here only as a general approximation.

III. DE 1/RIMS 1981 Data Catalog

Each line in the listing that follows represents one RIMS operation cycle and lists operation cycle number, instrument on/off time (UT), and quality information. An explanation of each field follows.

Operation Cycle Number: Begins with first science mode cycle. An operation cycle begins with an instrument "on" command and ends with an instrument "off" command. More than one operation cycle may be executed during a single spacecraft orbit.

Date: The year and day of year is represented as (YEAR-1900) * 1000 + DAYNUMBER.

Time Interval: The start/stop time (UT) of the operation cycle (HHMM).

Archive Flag: Used by RIMS team to flag which data have been archived to optical disk. The numerical entry is the disk number on which the data reside. "nd" or "no" = no data or too little data to archive. Used also when the electrometer was operated with the channeltrons off. In this latter case, the "nd" entry is followed by a notation of "Electrometer only." "oo" means data were not received from GSFC.

Quality Information: Text to summarize data anomalies, data gaps, and data processing problems.

"Sunpulse" means that a response of the radial head detector to solar UV can be seen in spectrograms of the data.

DNA: followed by a universal time (UT), means that data were not available for the time listed. This entry

usually indicates data were collected on the spacecraft but did not survive to the telemetry end product.

LMCD: Low mass channel degraded. Recognizable as H^+ counts that are lower than the He^+ counts in the high mass channel. Usually occurs when the spacecraft is in the plasmasphere.

BMD: Bad memory dump. When this is noted, the telemetry was in error or bits were incorrect in the RIMS memory. In either case, no data are obtained.

BEGIN LISTING

```
  1 81280 0952-1427 01A Sunpulse
  2 81280 1634-1859 01A Sunpulse
  3 81280 2323-0626 01A Sunpulse
  4 81281 0646-1128 01A Sunpulse
  5 81281 1305-1529 01A Sunpulse
  6 81281 2018-0207 01A Sunpulse
  7 81282 0949-1424 01A Sunpulse
  8 81282 1625-1856 01A
  9 81282 2320-0623 01A Sunpulse
 10 81283 0643-1125 oo
 11 81283 1302-1526 01A Sunpulse
 12 81283 1929-0250 01A Sunpulse
 13 81284 0310-0845 01A
 14 81284 0942-1200 oo
 15 81284 1550-2247 oo
 16 81284 2342-0612 01A Sunpulse
 17 81285 0640-1122 01A Sunpulse
 18 81285 1301-1523 01A
 19 81285 1926-0247 01A Sunpulse
 20 81286 0307-0842 01A Sunpulse
 21 81286 0939-1157 01A Sunpulse
 22 81286 1620-2244 01A Sunpulse
 23 81286 2339-0527 01A Sunpulse
 24 81287 0637-1152 01A Sunpulse
 25 81287 1258-1520 01A Sunpulse
 26 81287 1927-0204 01A Sunpulse
 27 81288 0303-0815 01A Sunpulse
 28 81288 0935-1153 01A Sunpulse
 29 81288 1421-2236 01A Sunpulse
 30 81288 2340-0132 01A Sunpulse
 31 81289 0300-0445 01A
 32 81289 0634-0827 01A Sunpulse
 33 81289 1111-1841 01A Sunpulse
 34 81289 1926-2218 01A Sunpulse
 35 81290 0307-0812 01A Sunpulse
 36 81290 0939-1148 01A Sunpulse, recorder off 1018 UT
 37 81290 1417-2232 01A Sunpulse
 38 81290 2336-0128 01A Sunpulse
 39 81291 0256-0525 01A Sunpulse
 40 81291 0630-0823 01A Sunpulse
 41 81291 1107-1837 01A Sunpulse
 42 81291 1922-2214 01A Sunpulse
 43 81292 0303-0808 01A Sunpulse
 44 81292 0902-1520 01A Sunpulse DNA: 1100-1204
 45 81292 1540-1751 01A Sunpulse
 46 81292 1851-2023 01A
 47 81292 2335-0042 01A Sunpulse
 48 81293 0142-0509 01A Sunpulse
 49 81293 0558-0733 01A Sunpulse
 50 81293 0903-1056 01A Sunpulse
 51 81293 1258-1424 01A Sunpulse
 52 81293 1537-1818 01A Sunpulse
 53 81293 1918-2115 01A Sunpulse
 54 81294 0259-0406 01A Sunpulse
 55 81294 0500-0804 01A
 56 81294 0858-1516 01A DNA:1056-1200
 57 81294 1536-1747 01A Sunpulse
 58 81294 1847-2019 01A
 59 81294 2331-0505 01A
 60 81295 0554-0729 01A
 61 81295 0859-1052 01A sunpulse
 62 81295 1254-1420 01A Sunpulse
 63 81295 1533-1814 01A Sunpulse
 64 81295 1914-2111 01A Sunpulse
 65 81296 0158-0402 01A Sunpulse
 66 81296 0502-0800 01A Sunpulse
 67 81296 0931-1053 01A Sunpulse
 68 81296 1153-1344 01A
 69 81296 1536-1744 01A Sunpulse
 70 81296 1844-2000 01A
 71 81296 2230-0036 01A Sunpulse
 72 81297 0136-0506 01A
 73 81297 0619-0726 01A Sunpulse
 74 81297 0841-1051 01A
 75 81297 1248-1408 01A Sunpulse
 76 81297 1517-1821 01A Sunpulse
 77 81297 2005-2107 01A Sunpulse
 78 81297 2207-2350 01A
 79 81298 0154-0358 01A Sunpulse
 80 81298 0458-0803 01A
 81 81298 0927-1049 01A
 82 81298 1149-1340 01A
 83 81298 1532-1740 01A Sunpulse
 84 81298 1840-1956 01A
 85 81298 2226-0032 01A Sunpulse
 86 81299 0132-0502 01A
 87 81299 0615-0722 01A
 88 81299 0837-1047 01A
 89 81299 1244-1404 nd  DNA:1244-1404
 90 81299 1513-1720 01A
 91 81299 1921-2104 01A DNA:1957-2050
 92 81299 2204-0140 01A
 93 81300 0226-0410 01A Sunpulse
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 95 81300 0923-1054 01A
 96 81300 1150-1244 01A
 97 81300 1500-1747 01A DNA:1614-1750
 98 81300 1835-2146 01A
 99 81300 2327-0043 01A
100 81301 0132-0503 01A
101 81301 0615-0718 01A
102 81301 0818-1046 01A DNA:0845-1046
103 81301 1216-1417 01A
104 81301 1508-1609 01A
105 81301 1917-2100 01A
106 81301 2200-0136 01A
107 81302 0223-0407 01A
108 81302 0457-0757 01A
109 81302 0919-1050 01A
110 81302 1146-1240 01A
111 81302 1446-1743 01A
112 81302 1831-2142 01A
113 81302 2323-0039 01A
114 81303 0019-0039 nd  Repeated entry
115 81303 0128-0459 01A
116 81303 0611-0714 01A
117 81303 0925-1030 01A
118 81303 1136-1821 oo
119 81303 1957-2056 01A
120 81303 2315-0117 01A
121 81303 2315-0117 nd  Repeated entry
122 81304 0234-0351 01A
123 81304 0449-0745 01A
124 81304 0831-1045 01A
125 81304 1142-1422 01A
126 81304 1533-1740 01A
127 81304 1834-0021 01A
128 81305 0213-0449 01A
129 81305 0608-0722 01A
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131 81305 1133-1410 01A
132 81305 1506-1818 01A
133 81305 2311-0113 01A
134 81306 0230-0347 01A
135 81306 0445-0741 01A
136 81306 0827-1041 01A DNA:0918-1023
137 81306 1138-1418 01A
138 81306 1529-1736 01A
139 81306 1830-0017 01A
140 81307 0210-0446 01A
141 81307 0525-0718 01A
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143 81307 1237-1405 oo
144 81307 1615-2048 01A
145 81307 2157-2339 01A
146 81308 0155-0354 01A
147 81308 0448-0740 01A random high counts
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149 81308 1139-1232 01A
150 81308 1521-1733 01A
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152 81308 2334-0028 01A
153 81309 0127-0427 01A
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155 81309 0804-1127 nd  DNA:0804-1127
156 81309 1233-1401 01A
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158 81309 2153-2335 01A
159 81310 0151-0350 01A
160 81310 0444-0736 01A
161 81310 0911-1035 01A
162 81310 1135-1228 01A
163 81310 1517-1729 01A
164 81310 1826-2256 01A
165 81310 2333-0024 01A
166 81311 0142-0442 01A
167 81311 0600-0711 01A
168 81311 0814-1035 01A
169 81311 1206-1358 01A
170 81311 1847-2056 01A
171 81311 2200-0146 01A
172 81312 0249-0346 01A
173 81312 0451-0718 01A
174 81312 0910-1032 01A
175 81312 1156-1709 01A
176 81312 1901-2014 01A
177 81312 2329-0020 01A
178 81313 0139-0439 01A
179 81313 0557-0708 01A
180 81313 0810-1031 01A
181 81313 1202-1354 01A
182 81313 1844-2053 01A
183 81313 2156-0142 01A
184 81314 0245-0342 oo
185 81314 0447-0714 01A
186 81314 0906-1100 01A
187 81314 1117-1705 01A
188 81314 2251-0515 01A Mode change 0026 and 0321
189 81315 0554-0703 01A
190 81315 0800-1038 nd  Not Archived-quality bad
191 81315 1220-1351 01A
192 81315 1846-2048 01A
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193 81315 2139-0131 01A
194 81316 0223-0338 01A
195 81316 0453-0556 01A
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197 81316 1127-1717 01A
198 81316 1751-1845 01A
199 81317 0549-0658 01A
200 81317 0755-1033 01A Incorrect B field 0800-0830
201 81317 1215-1346 01A
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206 81318 0847-1020 01A
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215 81320 1129-1709 01A
216 81320 2259-0004 01A
217 81321 0105-0318 01A
218 81321 0536-0639 01A
219 81321 0803-1330 01A
220 81321 1924-2020 01A
221 81321 2154-0032 01A
222 81322 0230-0311 01A
223 81322 0745-1011 01A
224 81322 1107-1245 01A
225 81322 1310-1654 01A
226 81322 2303-2355 01A
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230 81323 1645-2112 01A
231 81323 2203-0042 01A
232 81324 0228-0321 01A
233 81324 0741-1007 01A
234 81324 1103-1241 01A
235 81324 1306-1650 01A
236 81324 2258-2350 01A
237 81325 0114-0253 01A
238 81325 0451-0626 01A
239 81325 0757-1314 01A
240 81325 1641-2026 01A
241 81325 2144-0030 01A
242 81326 0223-0304 01A
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250 81327 2140-0026 01A No data 2159-2207
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260 81330 0533-0955 01A
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262 81330 1335-1635 01A
263 81330 2223-2344 01A
264 81331 0114-0630 01A
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266 81331 1920-2001 01A
267 81331 2120-0036 01A
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270 81332 1331-1631 01A
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274 81333 1917-2012 01A
275 81333 2055-2355 01A
276 81334 0209-0301 01A
277 81334 0748-0947 01A
278 81334 1035-1249 01A
279 81334 1449-1628 01A
280 81334 2015-2336 01A DNA: 2228-2336
281 81335 0053-0448 01A DNA: 0053-0124
282 81335 0516-0622 01A
283 81335 0941-1254 01A
284 81335 1913-2008 01A
285 81335 2051-2351 01A
286 81336 0205-0257 01A
287 81336 0744-0943 01A
288 81336 1031-1245 01A
289 81336 1445-1624 01A DNA:1445-1520
290 81336 2011-2332 01A
291 81337 0103-0441 01A
292 81337 0906-1306 01A
293 81337 1906-2004 01A
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298 81338 2045-2327 01A
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300 81339 0902-1302 01A
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302 81339 2041-0016 01A
303 81340 0159-0236 01A
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306 81340 2233-2323 01A
307 81341 0009-0451 01A
308 81341 0506-0612 01A
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319 81344 0323-0406 oo
320 81344 0753-0927 01A
321 81344 1226-1606 01A
322 81344 2231-2300 01A
323 81345 0033-0403 01A
324 81345 0459-0545 01A
325 81345 1035-1234 01A
326 81345 1357-1554 01A
327 81345 2039-0222 01A
328 81346 0605-0906 01A
329 81346 1222-1602 01A
330 81346 2227-2256 01A
331 81347 0029-0359 01A
332 81347 0455-0541 oo
333 81347 1032-1231 01A
334 81347 1353-1550 01A
335 81347 2035-0218 01A
336 81348 0745-0903 01A
337 81348 1433-1556 01A
338 81348 1730-2248 01A
339 81348 2316-0023 oo
340 81349 0443-0537 01A
341 81349 0710-1227 01A DNA:0736-0900
342 81349 1700-1921 01A
343 81349 2033-0027 01A
344 81350 0542-0859 01A
345 81350 0953-1212 oo
346 81350 1430-1553 01A
347 81350 1726-2248 01A
348 81351 0421-0533 01A
349 81351 0736-1223 01A
350 81351 1656-1920 01A
351 81351 2011-2325 oo
352 81352 0538-0855 01A
353 81352 0921-1208 oo
354 81352 1426-1549 01A
355 81352 1722-2244 01A
356 81353 0417-0529 01A
357 81353 0732-1219 01A
358 81353 1600-1916 01A
359 81353 2105-2335 01A
360 81354 0103-0204 01A
361 81354 0741-0850 01A
362 81354 0945-1118 oo
363 81354 1502-1545 01A
364 81354 1654-2239 oo
365 81355 0027-0524 01A
366 81355 1040-1214 01A
367 81355 1630-1912 01A
368 81355 1936-2340 oo
369 81356 0451-0846 01A
370 81356 1044-1541 01A
371 81356 1638-1915 oo
372 81356 2200-2235 01A
373 81357 0023-0520 01A
374 81357 1036-1210 01A
375 81357 1625-1907 01A
376 81357 1931-2335 oo
377 81358 0449-0844 01A
378 81358 1041-1538 01A
379 81358 1635-1912 oo
380 81358 2159-2234 01A
381 81358 2327-2350 oo
382 81359 0037-0518 01A B field bad 0037-0110
383 81359 0848-1209 01A
384 81359 1959-0155 01A
385 81360 0418-0840 01A
386 81360 1231-1924 01A
387 81360 2151-2228 01A
388 81361 0033-0514 oo
389 81361 0844-1205 01A
390 81361 1955-0247 01A
391 81362 0414-0836 01A
392 81362 1227-1920 01A Mode change 1458; and 1638
393 81362 2149-2226 01A
394 81363 0100-0334 01A
395 81363 0429-0508 01A
396 81363 0702-1200 01A Incorrect B field 0702-0730
397 81363 1400-1857 01A Incorrect B field 1400-1830
398 81363 1951-2239 oo
399 81364 0345-1120 01A
400 81364 1418-1528 01A
401 81364 1736-2240 01A Incorrect B field 1736-1810
402 81365 0056-0330 01A
403 81365 0425-0504 01A
404 81365 0658-1156 01A
405 81365 1821-1853 nd  DNA:1821-1853
406A81365 1947-2250 oo

END OF LISTING
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IV. DE1/RIMS 1981 INSTRUMENT MODES

The RIMS instrument, being programmable by spacecraft major and minor mode commands, operated in a variety of survey modes during the experiment lifetime. The operating sequence is controlled by an internal memory in the CEA which is programmed by ground command. The RIMS commonly performed two basic operational functions during the mission: (1) The RPA voltage is swept over a selected range for a given mass/charge and, (2) the RPA voltage is set to zero and a sweep is made over a selected mass/charge range. There are several variations of these modes, several specialized modes, and several combinations of sweeps, aperture biasing, and cycling patterns.

Users of the RIMS MAF data sets must be aware of the instrument mode setting for the segment of data being analyzed. The documentation data set, a listing of which accompanies this set of summary spectrograms, lists the RIMS minor mode B commands employed during the mission, keyed to the data's universal time. Brief information on the meaning of the mode mnemonics is given with that listing.

The following is a summary of the RIMS nominal operating modes:

IMSON, RPAON, APPON: "Turn-on" and initiation commands.

STOPIT: "Turn-off" command.

HIXXZ: A family of modes in which the instrument is measuring only one mass/charge pair and concentrating on either high mass/charge or angular resolution. The two unspecified locations in the mnemonic denoted by X will specify the heavier of the pair while the location denoted by Z refers to an RPA program.

XVXXZ: A family of survey modes in which the instrument splits its observing pattern between the H^+/He^+ mass/charge pair and one other mass/charge pair. The definition of the unspecified location is the same as in the previous case. The total cycle time is 16 sec.

SXYYZ: The alternate memory is used to observed the H^+/He^+ pair and the normal memory to observe another mass/charge pair. The XX denotes the heavier of the mass/charge pair under normal memory control. Each mass/charge pair is sampled for 8 sec. Total cycle time is 16 sec.

TXYYZ: A survey mode which is similar to the previous survey mode with the exception of the sequencing pattern. In this case, the H^+/He^+ setting is maintained for 8 sec with an RPA cycle each 0.25 sec. In the subsequent 8-sec half of the cycle time, the instrument toggles between the alternate mass/charge pairs each 0.25 sec. The total cycle time is 16 sec.

MXXYY: A mass/charge sweep mode starting at mass/charge XX and ending at mass/charge YY. The specified mass/charge numbers are those of the heavy mass channel. The lower mass channel is operating and measuring mass/charge species of 1/4 the high mass values. Note: The sweep may not be continuous within the specified range if prior instrument experience has indicated that certain mass/charge numbers are unpopulated. The cycle time is 0.5 sec.

CXXYY: A mass/charge sweep mode with interspersed RPA analysis of the H^+/He^+ pair. The cycle time is 16 sec.

SHXXY: A special mode for high latitude studies. The three ions O^+, H^+, and He^+ are measured with RPA scans for each. The cycle time is 1/2 sec.

SSZZZ: Special science modes designed after launch. Contact RIMS science team.

PLPHN: Plasma mode used to investigate spacecraft/plasma interactions. Geophysical data may be available, but will require special interpretation. N is the program number.

INSTR: Instrument check out, test, and calibration modes.

Note that the instrument may be operating with an additional potential applied to the entrance aperture. The start-up command APPON normally indicates the start of an aperture bias sequence although exceptions do exist within the data set. The following commands identify the applied bias voltage:

NAMMAP2X	-2 volts
NAMMAP4X	-4 volts
NAMMAP8X	-8 volts
PH20AAAA	-2 volts
PH20ADTD	-2 volts
PH40AAAA	-4 volts
PH40ADTD	-4 volts
PH80AAAA	-8 volts
PH80ADAA	-8 volts
PH80ADTD	-8 volts
PL80ADAA	-8 volts
HI04A02X	-2 volts
HI04A03X	-4 volts
HI04A04X	-8 volts
SH16M02X	-8 volts
SSNV801X	-8 volts
SSN8V01X	-8 volts
T816Q03X	-2 volts
T816Q04X	-4 volts
T816205X	-8 volts
SS04P01	-8 volts

The convention of naming modes as given above was generally but not rigorously followed, i.e., there may be times in which a mass/charge scan mode MXXYY alternated with measurement of H^+/He^+. Studies of the RIMS data set should be conducted only with a thorough understanding of the RIMS operational modes and the instrument response to these modes.

In the listing that follows, the year and daynumber is coded as (YEAR-1980) * 1000 + DAYNUMBER. The universal time of day is coded as HHMMSS.

BEGIN LISTING

1280	095200	IMSON
1280	095216	HI04A01
1280	142700	STOPIT
1280	163400	IMSON
1280	163416	HI04A01
1280	185900	STOPIT
1280	232300	IMSON
1280	232316	HI04A01
1281	062600	STOPIT
1281	064600	IMSON
1281	064616	HI04A01
1281	112800	STOPIT
1281	130500	IMSON
1281	130516	HI04A01
1281	152900	STOPIT
1281	201800	IMSON
1281	201816	HI04A01
1282	020700	STOPIT
1282	094900	IMSON
1282	094916	HI04A01
1282	142400	STOPIT
1282	162500	IMSON
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1284	094200	IMSON
1284	094216	HI04A01
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1284	155016	HI04A01
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1284	234216	HI04A01
1285	061200	STOPIT
1285	064000	IMSON
1285	064016	HI04A01
1285	112200	STOPIT
1285	130100	IMSON
1285	130116	HI04A01
1285	152300	STOPIT
1285	192600	IMSON
1285	192616	HI04A01
1286	024700	STOPIT
1286	030700	IMSON
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1286	084200	STOPIT
1286	093900	IMSON
1286	093916	HI04A01
1286	115700	STOPIT
1286	162000	IMSON
1286	162016	HI04A01
1286	224400	STOPIT
1286	233900	IMSON
1286	233916	HI04A01
1287	052700	STOPIT
1287	063700	IMSON
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1287	125800	IMSON
1287	125816	HI04A01
1287	152000	STOPIT
1287	192700	APPON
1287	192716	HI04A01
1287	192800	HI04A01X
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1287	202400	HI04A01X
1287	202500	HI04A03X
1287	202600	HI04A01X
1287	202700	HI04A04X
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1287	202900	HI04A02X
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1287	203100	HI04A03X
1287	203200	HI04A01X
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1287	210300	HI04A04X
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1287	211100	HI04A02X
1287	211200	HI04A01X
1287	211300	HI04A03X
1287	211400	HI04A01X
1287	211500	HI04A04X
1287	211600	HI04A01X
1287	211700	HI04A02X
1287	211800	HI04A01X
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1288	015000	HI04A03X
1288	015100	HI04A01X
1288	015200	HI04A04X
1288	015300	HI04A01X
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1288	015600	HI04A03X
1288	015700	HI04A01X
1288	015800	HI04A04X
1288	015900	HI04A01X
1288	020000	HI04A02X
1288	020100	HI04A01X
1288	020200	HI04A03X
1288	020300	HI04A01X
1288	020400	STOPIT
1288	030300	IMSON
1288	030316	HI04A01
1288	081500	STOPIT
1288	093500	IMSON
1288	093516	HI04A01
1288	115300	STOPIT
1288	142100	IMSON
1288	142116	HI04A01
1288	223600	STOPIT
1288	234000	IMSON
1288	234016	HI04A01
1289	013200	STOPIT
1289	030000	IMSON
1289	030016	HI04A01
1289	044500	STOPIT
1289	063400	IMSON
1289	063416	HI04A01
1289	082700	STOPIT
1289	111100	IMSON
1289	111116	HI04A01
1289	184100	STOPIT
1289	192600	IMSON
1289	192616	HI04A01
1289	221800	STOPIT
1290	030700	IMSON
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1291	063000	IMSON
1291	063016	HI04A01
1291	082300	STOPIT
1291	110700	IMSON
1291	110716	HI04A01
1291	183700	STOPIT
1291	192200	IMSON
1291	192216	HI04A01
1291	221400	STOPIT
1292	030300	IMSON
1292	030316	HI04A01
1292	080800	STOPIT
1292	090200	IMSON
1292	090216	T816E00X
1292	090220	T816E00A
1292	090224	T816E00B
1292	090228	T816E00C
1292	090232	T816E00D
1292	152000	STOPIT
1292	154000	IMSON
1292	154016	T816E00X
1292	154020	T816E00A
1292	154024	T816E00B
1292	154028	T816E00C
1292	154032	T816E00D
1292	175100	STOPIT
1292	185100	IMSON
1292	185116	T816E00X
1292	185120	T816E00A
1292	185124	T816E00B
1292	185128	T816E00C
1292	185132	T816E00D
1292	202300	STOPIT
1292	233500	IMSON
1292	233516	T816E00X
1292	233520	T816E00A
1292	233524	T816E00B
1292	233528	T816E00C
1292	233532	T816E00D

1293	004200	STOPIT	1295	181400	STOPIT	1298	015420	T816E00A	1301	004300	STOPIT	1306	141800	STOPIT
1293	014200	IMSON	1295	191400	IMSON	1298	015424	T816E00B	1301	013200	IMSON	1306	152900	IMSON
1293	014216	T816E00X	1295	191416	T816E00X	1298	015428	T816E00C	1301	013216	T816E03	1306	152916	T816E03
1293	014220	T816E00A	1295	191420	T816E00A	1298	015432	T816E00D	1301	050300	STOPIT	1306	173600	STOPIT
1293	014224	T816E00B	1295	191424	T816E00B	1298	035800	STOPIT	1301	061500	IMSON	1306	183000	IMSON
1293	014228	T816E00C	1295	191428	T816E00C	1298	045800	IMSON	1301	061516	T816E03	1306	183016	T816E03
1293	014232	T816E00D	1295	191432	T816E00D	1298	045816	T816E00X	1301	071800	STOPIT	1307	001700	STOPIT
1293	050900	STOPIT	1295	211100	STOPIT	1298	045820	T816E00A	1301	081800	IMSON	1307	021000	IMSON
1293	055800	IMSON	1296	015800	IMSON	1298	045824	T816E00B	1301	081816	T816E03	1307	021016	T816E03
1293	055816	T816E00X	1296	015816	T816E00X	1298	045828	T816E00C	1301	104600	STOPIT	1307	044600	STOPIT
1293	055820	T816E00A	1296	015820	T816E00A	1298	045832	T816E00D	1301	121600	IMSON	1307	052500	IMSON
1293	055824	T816E00B	1296	015824	T816E00B	1298	080300	STOPIT	1301	121616	T816E03	1307	052516	T816E03
1293	055828	T816E00C	1296	015828	T816E00C	1298	092700	IMSON	1301	141700	STOPIT	1307	071800	STOPIT
1293	055832	T816E00D	1296	015832	T816E00D	1298	092716	T816E00X	1301	150800	IMSON	1307	080800	IMSON
1293	073300	STOPIT	1296	040200	STOPIT	1298	092720	T816E00A	1301	150816	T816E03	1307	080816	T816E03
1293	090300	IMSON	1296	050200	IMSON	1298	092724	T816E00B	1301	160900	STOPIT	1307	113100	STOPIT
1293	090316	T816E00X	1296	050216	T816E00X	1298	092728	T816E00C	1301	191700	IMSON	1307	123700	IMSON
1293	090320	T816E00A	1296	050220	T816E00A	1298	092732	T816E00D	1301	191716	T816E03	1307	123716	T816E03
1293	090324	T816E00B	1296	050224	T816E00B	1298	104900	STOPIT	1301	210000	STOPIT	1307	140500	STOPIT
1293	090328	T816E00C	1296	050228	T816E00C	1298	114900	IMSON	1301	220000	IMSON	1307	161500	IMSON
1293	090332	T816E00D	1296	050232	T816E00D	1298	114916	T816E00X	1301	220016	T816E03	1307	161516	T816E03
1293	105600	STOPIT	1296	080000	STOPIT	1298	114920	T816E00A	1302	013600	STOPIT	1307	204800	STOPIT
1293	125800	IMSON	1296	093100	IMSON	1298	114924	T816E00B	1302	022300	IMSON	1307	215700	IMSON
1293	125816	T816E00X	1296	093116	T816E00X	1298	114928	T816E00C	1302	022316	T816E03	1307	215716	T816E03
1293	125820	T816E00A	1296	093120	T816E00A	1298	114932	T816E00D	1302	040700	STOPIT	1307	233900	STOPIT
1293	125824	T816E00B	1296	093124	T816E00B	1298	134000	STOPIT	1302	045700	IMSON	1308	015500	IMSON
1293	125828	T816E00C	1296	093128	T816E00C	1298	153200	IMSON	1302	045716	T816E03	1308	015516	T816E03
1293	125832	T816E00D	1296	093132	T816E00D	1298	153216	T816E00X	1302	075700	STOPIT	1308	035400	STOPIT
1293	142400	STOPIT	1296	105300	STOPIT	1298	153220	T816E00A	1302	091900	IMSON	1308	044800	IMSON
1293	153700	IMSON	1296	115300	IMSON	1298	153224	T816E00B	1302	091916	T816E03	1308	044816	T816E03
1293	153716	T816E00X	1296	115316	T816E00X	1298	153228	T816E00C	1302	105000	STOPIT	1308	074000	STOPIT
1293	153720	T816E00A	1296	115320	T816E00A	1298	153232	T816E00D	1302	114600	IMSON	1308	091500	IMSON
1293	153724	T816E00B	1296	115324	T816E00B	1298	174000	STOPIT	1302	114616	T816E03	1308	091516	T816E03
1293	153728	T816E00C	1296	115328	T816E00C	1298	184000	IMSON	1302	124000	STOPIT	1308	111200	STOPIT
1293	153732	T816E00D	1296	115332	T816E00D	1298	184016	T816E00X	1302	144600	IMSON	1308	113900	IMSON
1293	181800	STOPIT	1296	134400	STOPIT	1298	184020	T816E00A	1302	144616	T816E03	1308	113916	T816E03
1293	191800	IMSON	1296	153600	IMSON	1298	184024	T816E00B	1302	174300	STOPIT	1308	123200	STOPIT
1293	191816	T816E00X	1296	153616	T816E00X	1298	184028	T816E00C	1302	183100	IMSON	1308	152100	IMSON
1293	191820	T816E00A	1296	153620	T816E00A	1298	184032	T816E00D	1302	183116	T816E03	1308	152116	T816E03
1293	191824	T816E00B	1296	153624	T816E00B	1298	195600	STOPIT	1302	214200	STOPIT	1308	173300	STOPIT
1293	191828	T816E00C	1296	153628	T816E00C	1298	222600	IMSON	1302	232300	IMSON	1308	183000	IMSON
1293	191832	T816E00D	1296	153632	T816E00D	1298	222616	T816E00X	1302	232316	T816E03	1308	183016	T816E03
1293	211500	STOPIT	1296	174400	STOPIT	1298	222620	T816E00A	1303	003900	STOPIT	1308	230000	STOPIT
1294	025900	IMSON	1296	184400	IMSON	1298	222624	T816E00B	1303	012800	IMSON	1308	233400	IMSON
1294	025916	T816E00X	1296	184416	T816E00X	1298	222628	T816E00C	1303	012816	T816E03	1308	233416	T816E03
1294	025920	T816E00A	1296	184420	T816E00A	1298	222632	T816E00D	1303	045900	STOPIT	1309	002800	STOPIT
1294	025924	T816E00B	1296	184424	T816E00B	1299	003200	STOPIT	1303	061100	IMSON	1309	012700	IMSON
1294	025928	T816E00C	1296	184428	T816E00C	1299	013200	IMSON	1303	061116	T816E03	1309	012716	T816E03
1294	025932	T816E00D	1296	184432	T816E00D	1299	013216	T816E00X	1303	071400	STOPIT	1309	042700	STOPIT
1294	040600	STOPIT	1296	200000	STOPIT	1299	013220	T816E00A	1303	092500	IMSON	1309	052100	IMSON
1294	050000	IMSON	1296	223000	IMSON	1299	013224	T816E00B	1303	092516	T816E03	1309	052116	T816E03
1294	050016	T816E00	1296	223016	T816E00X	1299	013228	T816E00C	1303	103000	STOPIT	1309	071400	STOPIT
1294	080400	STOPIT	1296	223020	T816E00A	1299	013232	T816E00D	1303	113600	IMSON	1309	080400	IMSON
1294	085800	IMSON	1296	223024	T816E00B	1299	050200	STOPIT	1303	113616	T816E03	1309	080416	T816E03
1294	085816	T816E00X	1296	223028	T816E00C	1299	061500	IMSON	1303	182100	STOPIT	1309	112700	STOPIT
1294	085820	T816E00A	1296	223032	T816E00D	1299	061516	T816E00X	1303	195700	IMSON	1309	123300	IMSON
1294	085824	T816E00B	1297	003600	STOPIT	1299	061520	T816E00A	1303	195716	T816E03	1309	123316	T816E03
1294	085828	T816E00C	1297	013600	IMSON	1299	061524	T816E00B	1303	205600	STOPIT	1309	140100	STOPIT
1294	085832	T816E00D	1297	013616	T816E00X	1299	061528	T816E00C	1303	231500	IMSON	1309	161100	IMSON
1294	151600	STOPIT	1297	013620	T816E00A	1299	061532	T816E00D	1303	231516	T816E03	1309	161116	T816E03
1294	153600	IMSON	1297	013624	T816E00B	1299	072200	STOPIT	1304	011700	STOPIT	1309	204400	STOPIT
1294	153616	T816E00X	1297	013628	T816E00C	1299	083700	IMSON	1304	023400	IMSON	1309	215300	IMSON
1294	153620	T816E00A	1297	013632	T816E00D	1299	083716	T816E00X	1304	023416	T816E03	1309	215316	T816E03
1294	153624	T816E00B	1297	050600	STOPIT	1299	083720	T816E00A	1304	035100	STOPIT	1309	233500	STOPIT
1294	153628	T816E00C	1297	061900	IMSON	1299	083724	T816E00B	1304	044900	IMSON	1310	015100	IMSON
1294	153632	T816E00D	1297	061916	T816E00X	1299	083728	T816E00C	1304	044916	T816E03	1310	015116	T816E03
1294	174700	STOPIT	1297	061920	T816E00A	1299	083732	T816E00D	1304	074500	STOPIT	1310	035000	STOPIT
1294	184700	IMSON	1297	061924	T816E00B	1299	104700	STOPIT	1304	083100	IMSON	1310	044400	IMSON
1294	184716	T816E00X	1297	061928	T816E00C	1299	124400	IMSON	1304	083116	T816E03	1310	044416	T816E03
1294	184720	T816E00A	1297	061932	T816E00D	1299	124416	T816E00X	1304	104500	STOPIT	1310	073600	STOPIT
1294	184724	T816E00B	1297	072600	STOPIT	1299	124420	T816E00A	1304	114200	IMSON	1310	091100	IMSON
1294	184728	T816E00C	1297	084100	IMSON	1299	124424	T816E00B	1304	114216	T816E03	1310	091116	T816E03
1294	184732	T816E00D	1297	084116	T816E00X	1299	124428	T816E00C	1304	142200	STOPIT	1310	103500	STOPIT
1294	201900	STOPIT	1297	084120	T816E00A	1299	124432	T816E00D	1304	153300	IMSON	1310	113500	IMSON
1294	233100	IMSON	1297	084124	T816E00B	1299	140400	STOPIT	1304	153316	T816E03	1310	113516	T816E03
1294	233116	T816E00X	1297	084128	T816E00C	1299	151300	IMSON	1304	174000	STOPIT	1310	122800	STOPIT
1294	233120	T816E00A	1297	084132	T816E00D	1299	151316	T816E00X	1304	183400	IMSON	1310	151700	IMSON
1294	233124	T816E00B	1297	105100	STOPIT	1299	151320	T816E00A	1304	183416	T816E03	1310	151716	T816E03
1294	233128	T816E00C	1297	124800	IMSON	1299	151324	T816E00B	1305	002100	STOPIT	1310	172900	STOPIT
1294	233132	T816E00D	1297	124816	T816E00X	1299	151328	T816E00C	1305	021300	IMSON	1310	182600	IMSON
1295	050500	STOPIT	1297	124820	T816E00A	1299	151332	T816E00D	1305	021316	T816E03	1310	182616	T816E03
1295	055400	IMSON	1297	124824	T816E00B	1299	172000	STOPIT	1305	044900	STOPIT	1310	225600	STOPIT
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1295	055420	T816E00A	1297	124832	T816E00D	1299	192116	T816E03	1305	060816	T816E03	1310	233316	T816E03
1295	055424	T816E00B	1297	140800	STOPIT	1299	210400	STOPIT	1305	072200	STOPIT	1311	002400	STOPIT
1295	055428	T816E00C	1297	151700	IMSON	1299	220400	IMSON	1305	081200	IMSON	1311	014200	IMSON
1295	055432	T816E00D	1297	151716	T816E00X	1299	220416	T816E03	1305	081216	T816E03	1311	014216	T816E03
1295	072900	STOPIT	1297	151720	T816E00A	1300	014000	STOPIT	1305	102000	STOPIT	1311	044200	STOPIT
1295	085900	IMSON	1297	151724	T816E00B	1300	022600	IMSON	1305	113300	IMSON	1311	060000	IMSON
1295	085916	T816E00X	1297	151728	T816E00C	1300	022616	T816E03	1305	113316	T816E03	1311	060016	T816E03
1295	085920	T816E00A	1297	151732	T816E00D	1300	041000	STOPIT	1305	141000	STOPIT	1311	071100	STOPIT
1295	085924	T816E00B	1297	182100	STOPIT	1300	050000	IMSON	1305	150600	IMSON	1311	081400	IMSON
1295	085928	T816E00C	1297	200500	IMSON	1300	050016	T816E03	1305	150616	T816E03	1311	081416	T816E03
1295	085932	T816E00D	1297	200516	T816E00X	1300	080000	STOPIT	1305	181800	STOPIT	1311	103500	STOPIT
1295	105200	STOPIT	1297	200520	T816E00A	1300	092300	IMSON	1305	231100	IMSON	1311	120600	IMSON
1295	125400	IMSON	1297	200524	T816E00B	1300	092316	T816E03	1305	231116	T816E03	1311	120616	T816E03
1295	125416	T816E00X	1297	200528	T816E00C	1300	105400	STOPIT	1306	011300	STOPIT	1311	135800	STOPIT
1295	125420	T816E00A	1297	200532	T816E00D	1300	115000	IMSON	1306	023000	IMSON	1311	184700	IMSON
1295	125424	T816E00B	1297	210700	STOPIT	1300	115016	T816E03	1306	023016	T816E03	1311	184716	T816E03
1295	125428	T816E00C	1297	220700	IMSON	1300	124400	STOPIT	1306	034700	STOPIT	1311	205600	STOPIT
1295	125432	T816E00D	1297	220716	T816E00X	1300	150000	IMSON	1306	044500	IMSON	1311	220000	IMSON
1295	142000	STOPIT	1297	220720	T816E00A	1300	150016	T816E03	1306	044516	T816E03	1311	220016	T816E03
1295	153300	IMSON	1297	220724	T816E00B	1300	174700	STOPIT	1306	074100	STOPIT	1312	014600	STOPIT
1295	153316	T816E00X	1297	220728	T816E00C	1300	183500	IMSON	1306	082700	IMSON	1312	024900	IMSON
1295	153320	T816E00A	1297	220732	T816E00D	1300	183516	T816E03	1306	082716	T816E03	1312	024916	T816E03
1295	153324	T816E00B	1297	235000	STOPIT	1300	214600	STOPIT	1306	104100	STOPIT	1312	034600	STOPIT
1295	153328	T816E00C	1298	015400	IMSON	1300	232700	IMSON	1306	113800	IMSON	1312	045100	IMSON
1295	153332	T816E00D	1298	015416	T816E00X	1300	232716	T816E03	1306	113816	T816E03	1312	045116	T816E03

1312	071800	STOPIT
1312	091000	IMSON
1312	091016	T816E03
1312	103200	STOPIT
1312	115600	IMSON
1312	115616	T816E03
1312	170900	STOPIT
1312	190100	IMSON
1312	190116	T816E03
1312	201400	STOPIT
1312	232900	IMSON
1312	232916	T816E03
1313	002000	STOPIT
1313	013900	IMSON
1313	013916	T816E03
1313	043900	STOPIT
1313	055700	IMSON
1313	055716	T816E03
1313	070800	STOPIT
1313	081000	IMSON
1313	081016	T816E03
1313	103100	STOPIT
1313	120200	IMSON
1313	120216	T816E03
1313	135400	STOPIT
1313	184400	IMSON
1313	184416	T816E03
1313	205300	STOPIT
1313	215600	IMSON
1313	215616	T816E03
1314	014200	STOPIT
1314	024500	IMSON
1314	024516	T816E03
1314	034200	STOPIT
1314	044700	IMSON
1314	044716	T816E03
1314	071400	STOPIT
1314	090600	IMSON
1314	090616	T816E03
1314	110000	STOPIT
1314	111700	IMSON
1314	111716	T816E03
1314	170500	STOPIT
1314	225100	IMSON
1314	225116	C416L01
1315	002600	CMMSL01
1315	010300	CS16L01
1315	032100	CS04L01
1315	051500	STOPIT
1315	055400	IMSON
1315	055416	T816E03
1315	070300	STOPIT
1315	080000	IMSON
1315	080016	T816E03
1315	103800	STOPIT
1315	122000	IMSON
1315	122016	T816E03
1315	135100	STOPIT
1315	184600	IMSON
1315	184616	T816E03
1315	204800	STOPIT
1315	213900	IMSON
1315	213916	T816E03
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1316	022300	IMSON
1316	022316	T816E03
1316	033800	STOPIT
1316	045300	IMSON
1316	045316	T816E03
1316	055600	STOPIT
1316	085000	IMSON
1316	085016	T816E03
1316	102300	STOPIT
1316	112700	IMSON
1316	112716	T816E03
1316	171700	STOPIT
1316	175100	IMSON
1316	175116	T816E03
1316	184500	STOPIT
1316	054900	IMSON
1316	054916	T816E03
1316	065800	STOPIT
1317	075500	IMSON
1317	075516	T816E03
1317	103300	STOPIT
1317	121500	IMSON
1317	121516	T816E03
1317	134600	STOPIT
1317	184100	IMSON
1317	184116	T816E03
1317	204300	STOPIT
1317	213400	IMSON
1317	213416	T816E03
1318	012600	STOPIT
1318	021900	IMSON
1318	021916	T816E03
1318	033400	STOPIT
1318	045000	IMSON
1318	045016	T816E03
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1318	102000	STOPIT
1318	113300	IMSON
1318	113316	T816E03
1318	171300	STOPIT
1318	230300	IMSON
1318	230316	T816E03

1319	000800	STOPIT
1319	010900	IMSON
1319	010916	T816E03
1319	032200	STOPIT
1319	054000	IMSON
1319	054016	T816E03
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1319	080700	IMSON
1319	080716	T816E03
1319	133400	STOPIT
1319	192800	IMSON
1319	192816	T816E03
1319	202400	STOPIT
1320	043400	IMSON
1320	043416	T816E03
1320	054900	STOPIT
1320	085500	IMSON
1320	085516	T816E03
1320	104800	STOPIT
1320	112900	IMSON
1320	112916	T816E03
1320	170900	STOPIT
1320	225900	IMSON
1320	225916	T816E03
1321	000400	STOPIT
1321	010500	IMSON
1321	010516	T816E03
1321	031800	STOPIT
1321	053600	IMSON
1321	053616	T816E03
1321	063900	STOPIT
1321	080300	IMSON
1321	080316	T816E03
1321	133000	STOPIT
1321	192400	IMSON
1321	192416	T816E03
1321	202000	STOPIT
1321	215400	IMSON
1321	215416	T816E03
1322	003200	STOPIT
1322	023000	IMSON
1322	023016	T816E03
1322	031100	STOPIT
1322	074500	IMSON
1322	074516	T816E03
1322	101100	STOPIT
1322	110700	IMSON
1322	110716	T816E03
1322	124500	STOPIT
1322	131000	IMSON
1322	131016	T816E03
1322	165400	STOPIT
1322	230300	IMSON
1322	230316	T816E03
1322	235500	STOPIT
1323	011800	IMSON
1323	011816	T816E03
1323	025700	STOPIT
1323	045500	IMSON
1323	045516	T816E03
1323	063000	STOPIT
1323	092200	IMSON
1323	092216	T816E03
1323	132400	STOPIT
1323	164500	IMSON
1323	164516	T816E03
1323	211200	STOPIT
1323	220300	IMSON
1323	220316	T816E03
1324	004200	STOPIT
1324	022800	IMSON
1324	022816	T816E03
1324	032100	STOPIT
1324	074100	IMSON
1324	074116	T816E03
1324	100700	STOPIT
1324	110300	IMSON
1324	110316	T816E03
1324	124100	STOPIT
1324	130600	IMSON
1324	130616	T816E03
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1324	225800	IMSON
1324	225816	T816E03
1324	235000	STOPIT
1325	011400	IMSON
1325	011416	T816E03
1325	025300	STOPIT
1325	045100	IMSON
1325	045116	T816E03
1325	062600	STOPIT
1325	075700	IMSON
1325	075716	T816E03
1325	131400	STOPIT
1325	164100	IMSON
1325	164116	T816E03
1325	202600	STOPIT
1325	214400	IMSON
1325	214416	T816E03
1326	003000	STOPIT
1326	022300	IMSON
1326	022316	T816E03
1326	030400	STOPIT
1326	041800	IMSON
1326	041816	T816E03
1326	100300	STOPIT
1326	150700	IMSON
1326	150716	T816E03

1326	165700	STOPIT
1326	213000	IMSON
1326	213016	T816E03
1326	235200	STOPIT
1327	003300	IMSON
1327	003316	T816E03
1327	034700	STOPIT
1327	051500	IMSON
1327	051516	T816E03
1327	062100	STOPIT
1327	080600	IMSON
1327	080616	T816E03
1327	131500	STOPIT
1327	173900	IMSON
1327	173916	T816E03
1327	201100	STOPIT
1327	214000	IMSON
1327	214016	T816E03
1328	002600	STOPIT
1328	021900	IMSON
1328	021916	T816E03
1328	030000	STOPIT
1328	041400	IMSON
1328	041416	T816E03
1328	095900	STOPIT
1328	150300	IMSON
1328	150316	T816E03
1328	165300	STOPIT
1328	212600	IMSON
1328	212616	T816E03
1328	234800	STOPIT
1329	002900	IMSON
1329	002916	T816E03
1329	034300	STOPIT
1329	051100	IMSON
1329	051116	T816E03
1329	061700	STOPIT
1329	080300	IMSON
1329	080316	T816E03
1329	131200	STOPIT
1329	192300	IMSON
1329	192316	T816E03
1329	200400	STOPIT
1329	212400	IMSON
1329	212416	T816E03
1330	004000	STOPIT
1330	053300	IMSON
1330	053316	T816E03
1330	095500	STOPIT
1330	104500	IMSON
1330	104516	T816E03
1330	120000	STOPIT
1330	133500	IMSON
1330	133516	T816E03
1330	163500	STOPIT
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1331	011400	IMSON
1331	011416	T816E03
1331	063000	STOPIT
1331	075100	IMSON
1331	075116	T816E03
1331	131700	STOPIT
1331	192000	IMSON
1331	192016	T816E03
1331	200100	STOPIT
1331	212000	IMSON
1331	212016	T816E03
1332	003600	STOPIT
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1332	133100	IMSON
1332	133116	T816E03
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1332	221916	T816E03
1332	234000	STOPIT
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1334	233600	STOPIT
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1335	005316	T816E03
1335	044800	STOPIT
1335	051600	IMSON
1335	051616	T816E03
1335	062200	STOPIT
1335	094100	IMSON
1335	094116	T816E03
1335	125400	STOPIT
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1335	191316	T816E03
1335	200800	STOPIT
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1335	205116	T816E03
1335	235100	STOPIT
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1336	103116	T816E03
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1336	144516	T816E03
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1336	233200	STOPIT
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1337	044100	STOPIT
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1339	190216	T816E03
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1340	015916	T816E03
1340	023600	STOPIT
1340	082300	IMSON
1340	082316	T816E03
1340	091600	STOPIT
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1340	102616	T816E03
1340	161400	STOPIT
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1340	223316	T816E03
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1344	160600	STOPIT
1344	223100	IMSON
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1348	173016	T816E03
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1348	231600	M283401
1349	002300	STOPIT
1349	044300	IMSON
1349	044316	T816E03
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1349	170000	IMSON
1349	170016	T816E03
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1349	203316	T816E03
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1350	172616	T816E03
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1352	053816	T816E03
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1352	094900	T816E03
1352	120800	STOPIT
1352	142600	IMSON

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1352 154900 STOPIT
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1352 172216 T816E03
1352 224400 STOPIT
1353 041700 IMSON
1353 041716 T816E03
1353 052900 STOPIT
1353 073200 IMSON
1353 073216 T816E03
1353 121900 STOPIT
1353 160000 IMSON
1353 160016 T816E03
1353 191600 STOPIT
1353 210500 IMSON
1353 210516 T816E03
1353 233500 STOPIT
1354 010300 IMSON
1354 010316 T816E03
1354 020400 STOPIT
1354 074100 IMSON
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1354 094500 T816E03
1354 111800 STOPIT
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1354 165400 T816E03
1354 223900 STOPIT
1355 002700 IMSON
1355 002716 T816E03
1355 052400 STOPIT
1355 104000 IMSON
1355 104016 T816E03
1355 121400 STOPIT
1355 163000 IMSON
1355 163016 T816E03
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1355 193600 SH16M01
1355 202000 T816E03
1355 234000 STOPIT
1356 045100 IMSON
1356 045116 T816E03
1356 084600 STOPIT
1356 104400 IMSON
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1356 154100 STOPIT
1356 163800 T816E03
1356 191500 STOPIT
1356 220000 IMSON
1356 220016 T816E03
1356 223500 STOPIT
1357 002300 IMSON
1357 002316 T816E03
1357 052000 STOPIT
1357 103600 IMSON
1357 103616 T816E03
1357 121000 STOPIT
1357 162500 IMSON
1357 162516 T816E03
1357 190700 STOPIT
1357 193100 M283401
1357 233500 STOPIT
1358 044900 IMSON
1358 044916 T816E03
1358 084400 STOPIT
1358 104100 IMSON
1358 104116 T816E03
1358 153800 STOPIT
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1358 215916 T816E03
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1358 232700 T816E03
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1359 003700 IMSON
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1359 195900 IMSON
1359 195916 M283401
1360 015500 STOPIT
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1360 123100 IMSON
1360 123116 SH16M01
1360 150200 T816E03
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1361 084416 T816E03
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1361 195500 IMSON
1361 195516 M283401
1362 024700 STOPIT
1362 041400 IMSON
1362 041416 SH16M01
1362 072900 T816E03
1362 083600 STOPIT
1362 122700 IMSON
1362 122716 SH16M01
1362 145800 T816E03
1362 163800 SH16M01
1362 192000 STOPIT
1362 214900 IMSON
1362 214916 T816E03
1362 222600 STOPIT
1363 010000 IMSON
1363 010016 SH16M01
1363 033400 STOPIT
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1363 195100 T816E03
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1364 034500 IMSON
1364 034516 M083201
1364 112000 STOPIT
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1364 152800 STOPIT
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1364 173616 T816E03
1364 191300 SH16M01
1364 215400 T816E03
1364 224000 STOPIT
1365 005600 IMSON
1365 005616 SH16M01
1365 033000 STOPIT
1365 042500 IMSON
1365 042516 T816E03
1365 050400 STOPIT
1365 065800 IMSON
1365 065816 T816E03
1365 115600 STOPIT
1365 182100 IMSON
1365 182116 T816E03
1365 185300 STOPIT
1365 194700 T816E03
1365 225000 STOPIT

END LISTING
```

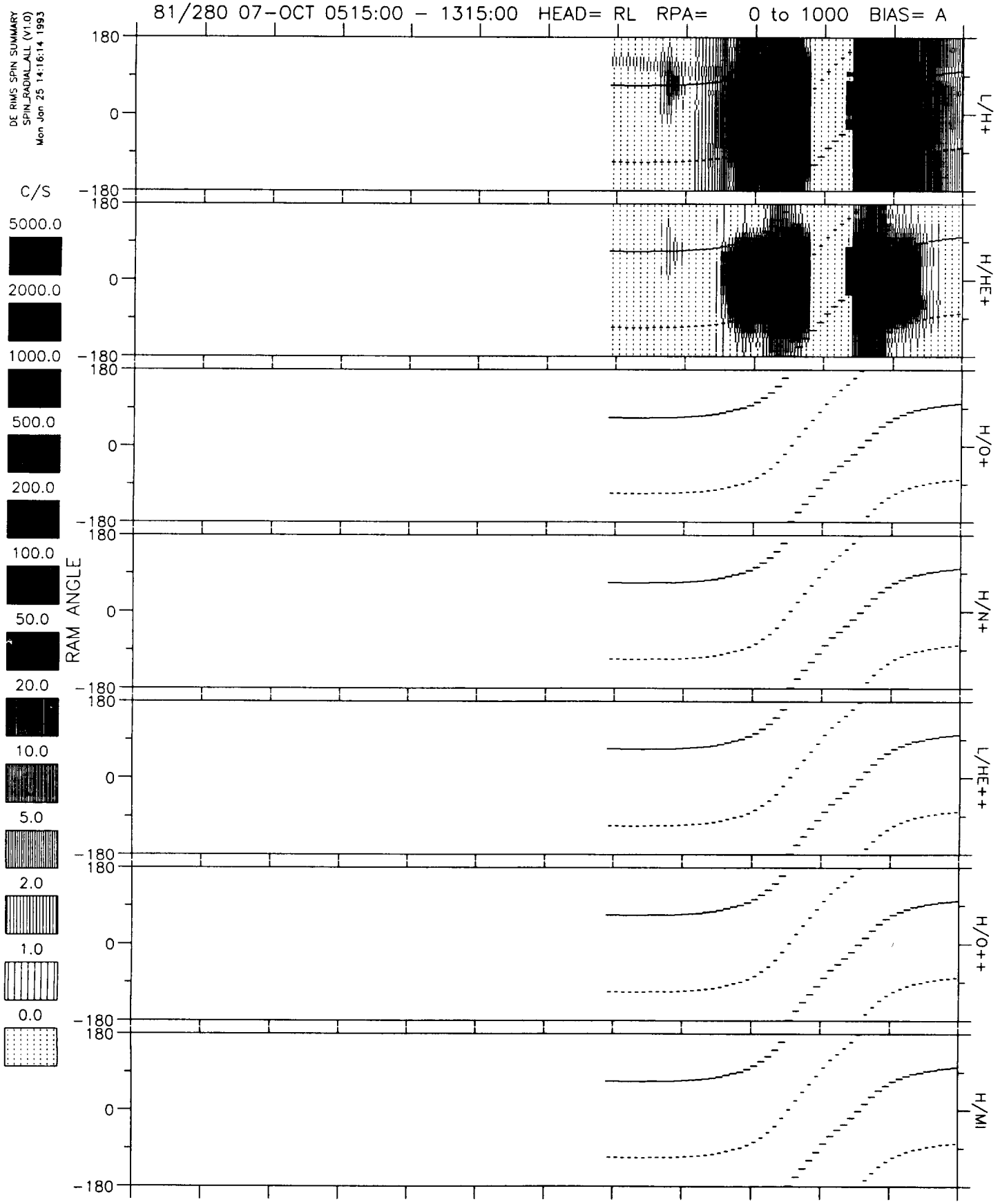
V. DE1/RIMS 1981 SUMMARY SPECTROGRAMS

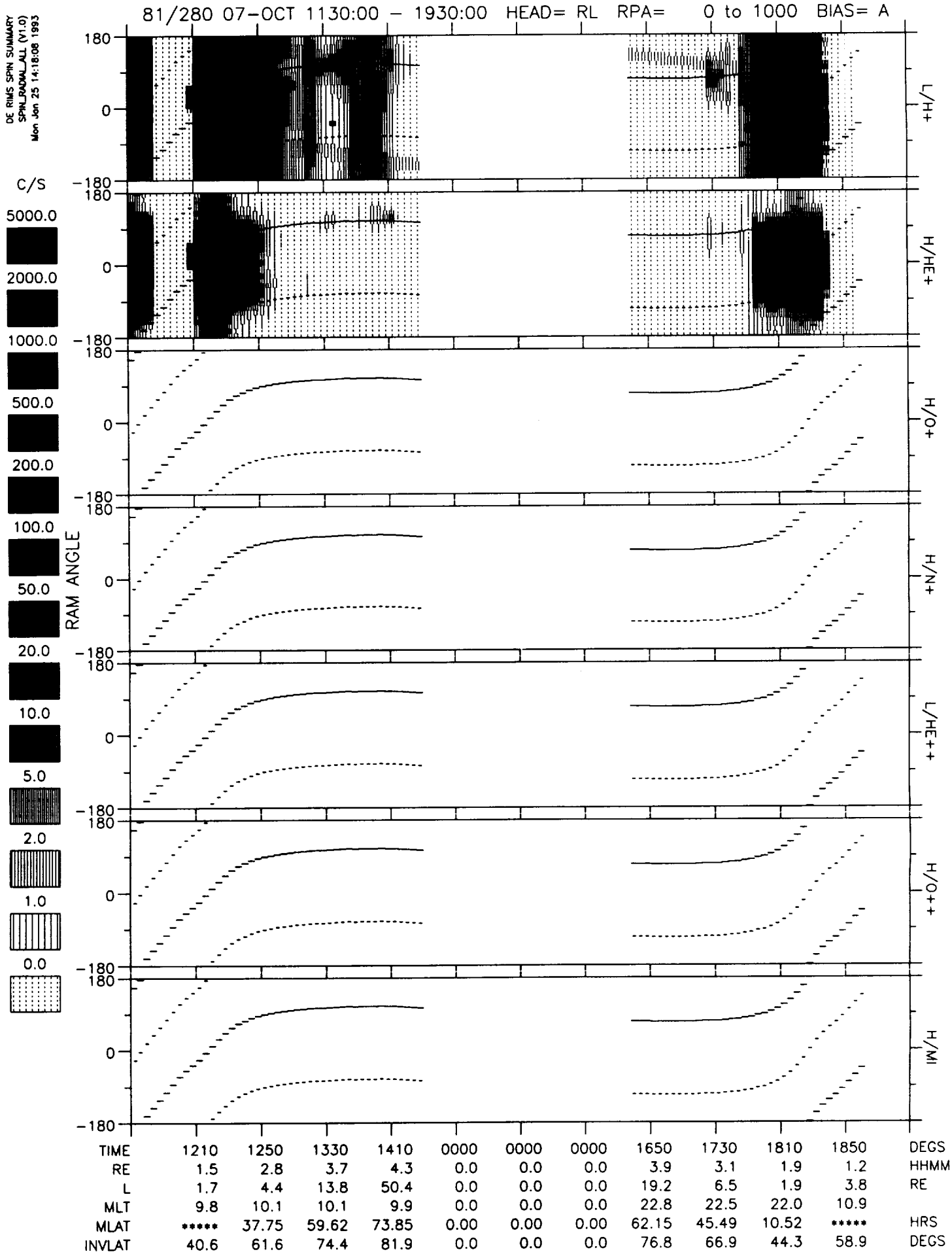
Errata

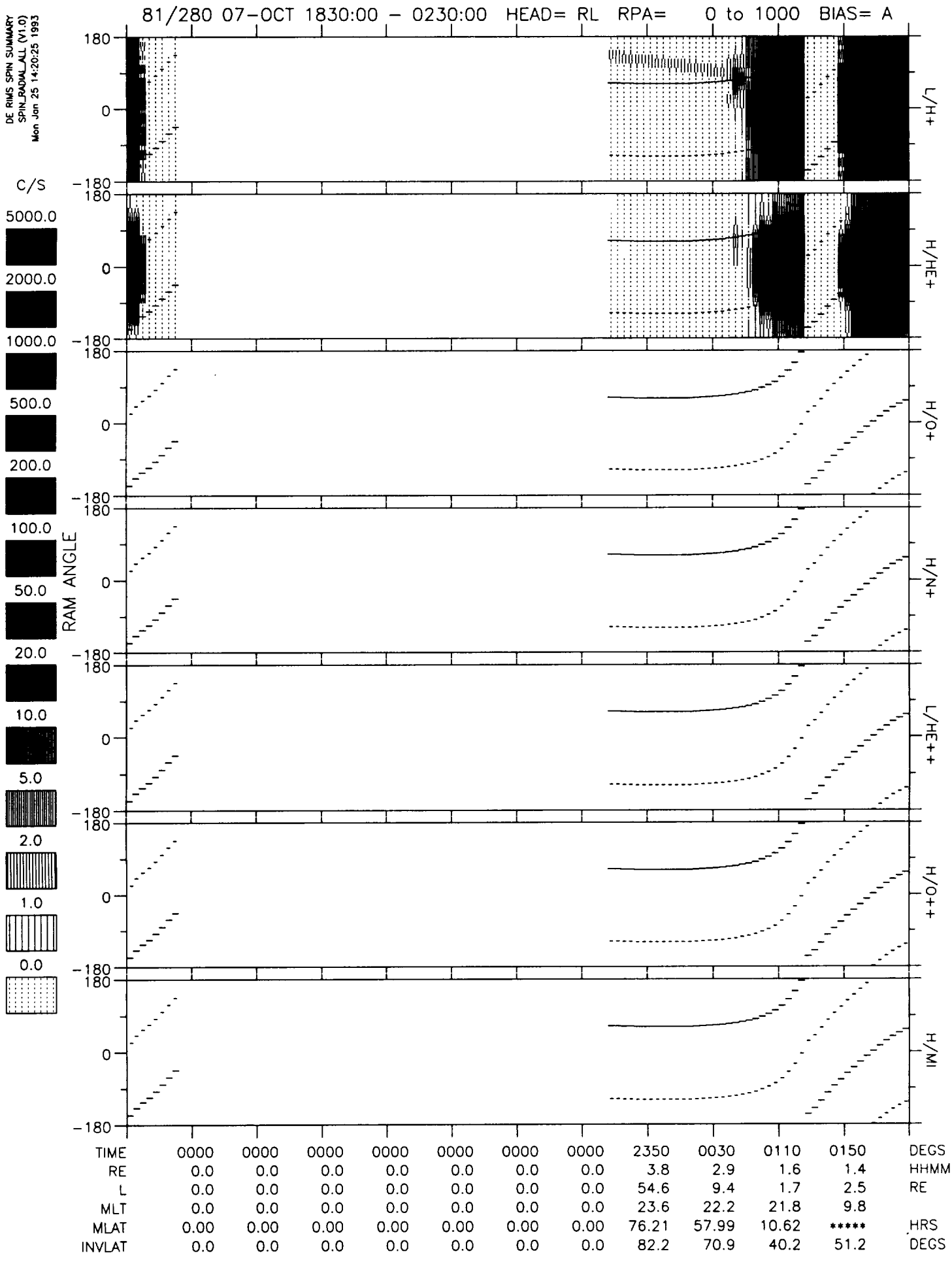
Units listed for the various orbit parameters shown at the bottom of each plot should be as follows:

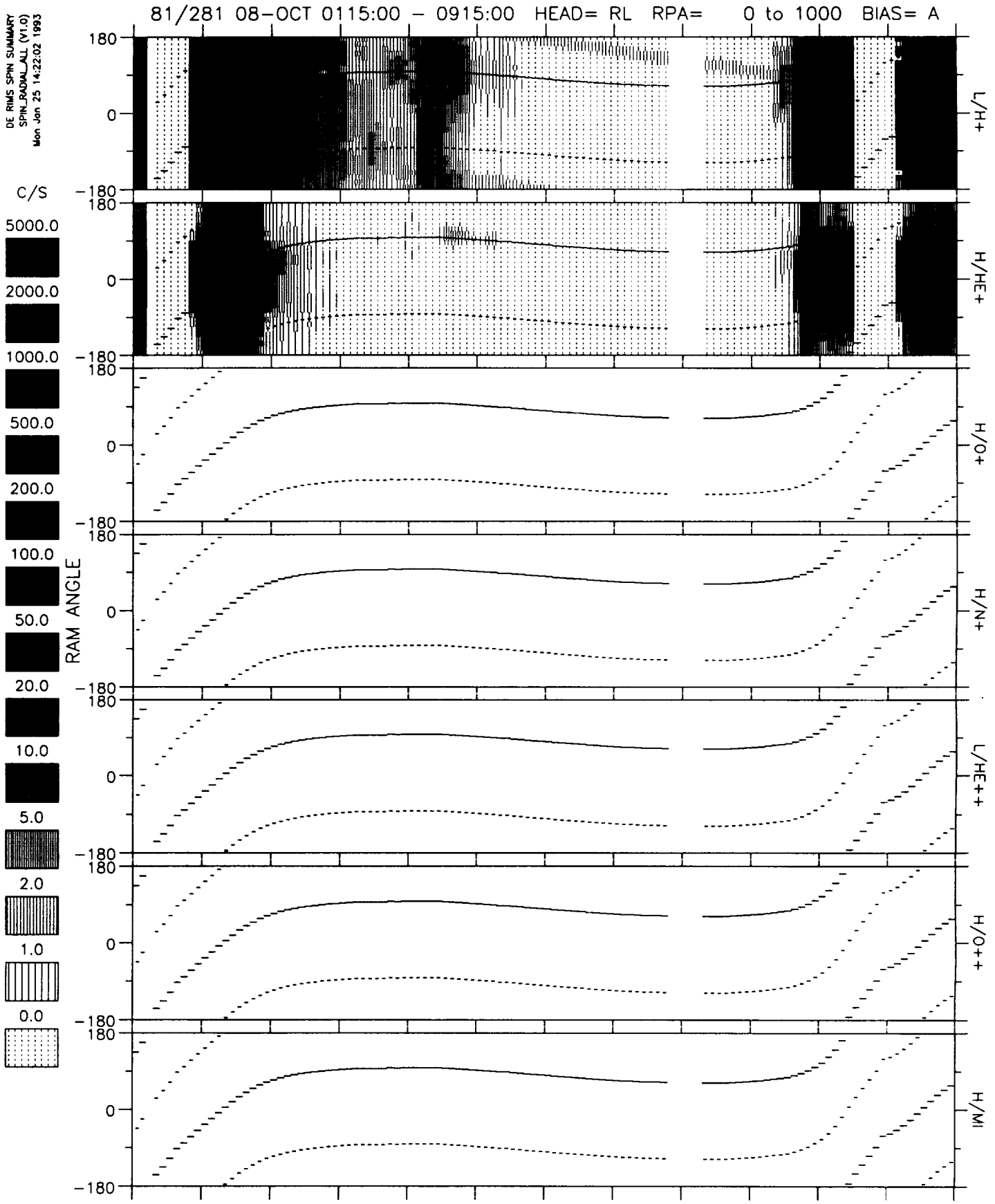
TIME	HHMM
RE	RE
L	
MLT	HRS
MLAT	DEGS
INVLAT	DEGS

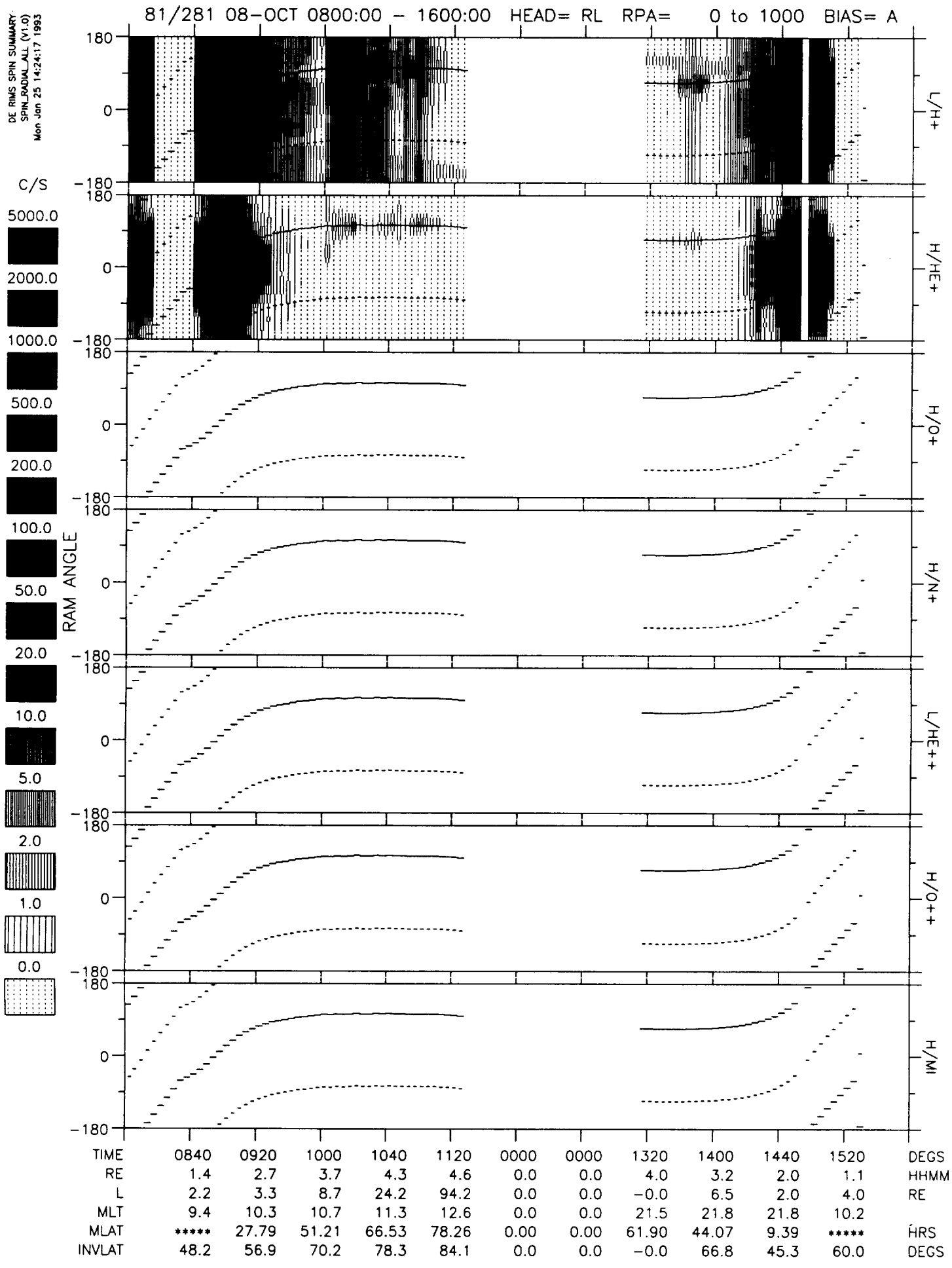
The panel labeled L/He^{++} refers to the response of the RIMS low-mass channel to the M/Z=2 mass/charge settings.

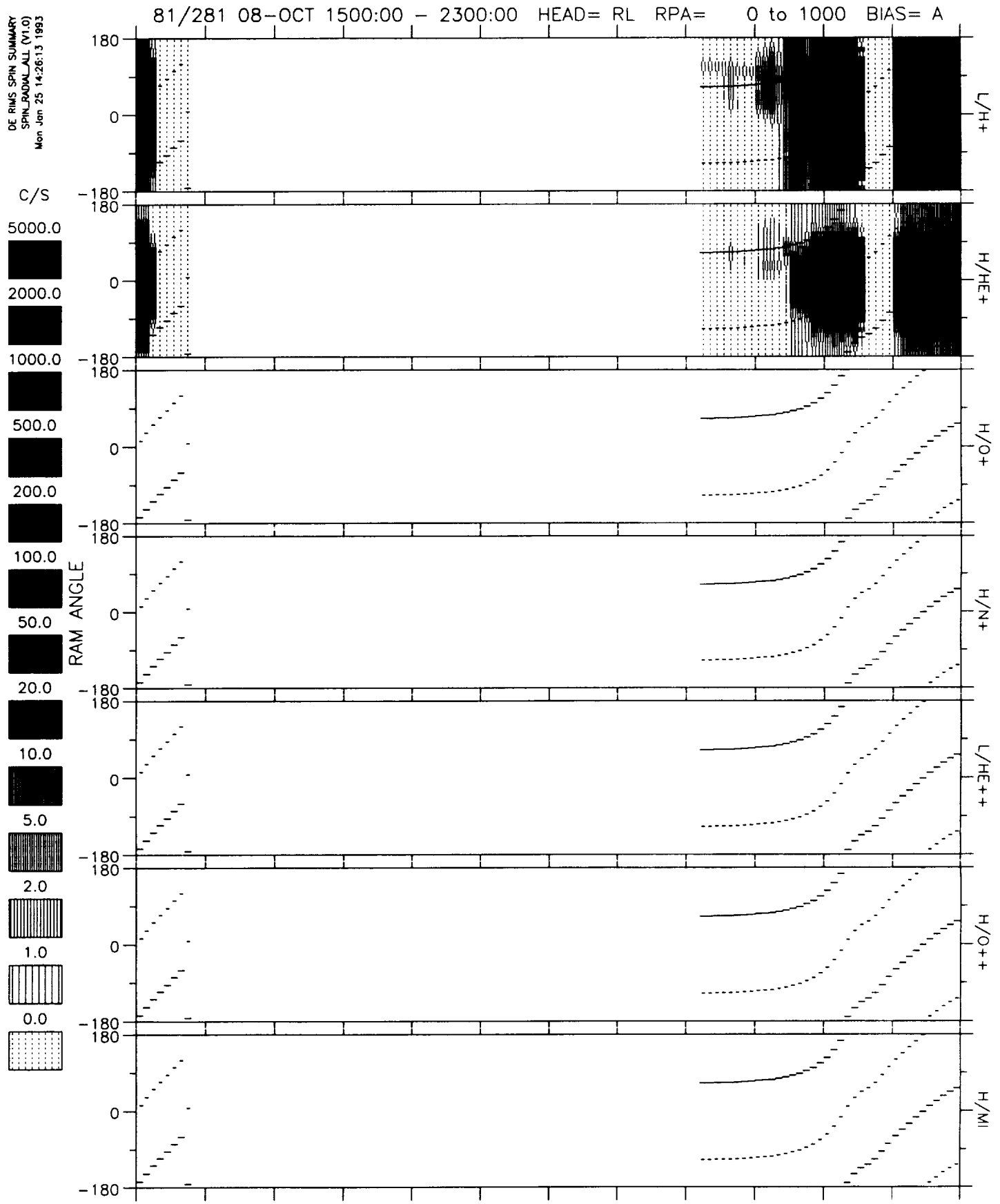



81/280 07-OCT 1130:00 - 1930:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Jan 25 14:18:08 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1210 1250 1330 1410 0000 0000 0000 1650 1730 1810 1850 DEGS
RE 1.5 2.8 3.7 4.3 0.0 0.0 0.0 3.9 3.1 1.9 1.2 HHMM
L 1.7 4.4 13.8 50.4 0.0 0.0 0.0 19.2 6.5 1.9 3.8 RE
MLT 9.8 10.1 10.1 9.9 0.0 0.0 0.0 22.8 22.5 22.0 10.9
MLAT ***** 37.75 59.62 73.85 0.00 0.00 0.00 62.15 45.49 10.52 ***** HRS
INVLAT 40.6 61.6 74.4 81.9 0.0 0.0 0.0 76.8 66.9 44.3 58.9 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Jon 25 14:20:25 1993
81/280 07-OCT 1830:00 - 0230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 2350 0030 0110 0150 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.8 2.9 1.6 1.4 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 54.6 9.4 1.7 2.5 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 23.6 22.2 21.8 9.8
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 76.21 57.99 10.62 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 82.2 70.9 40.2 51.2 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Jan 25 14:22:02 1993
81/281 08-OCT 0115:00 - 0915:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0155 0235 0315 0355 0435 0515 0555 0000 0715 0755 0835 DEGS
RE 1.6 2.9 3.8 4.3 4.6 4.6 4.4 0.0 3.0 1.8 1.3 HHMM
L 2.0 3.2 6.4 12.3 26.1 73.3 100.0 0.0 8.4 1.8 3.0 RE
MLT 9.8 9.8 10.0 10.3 10.8 12.1 15.7 0.0 20.9 21.8 9.1
MLAT ***** 17.85 38.50 52.58 64.24 74.52 80.45 0.00 53.22 11.93 ***** HRS
INVLAT 45.6 56.0 66.7 73.4 78.7 83.3 86.0 0.0 69.8 42.4 54.8 DEGS


81/281 08-OCT 0800:00 - 1600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Jan 25 14:24:17 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0840 0920 1000 1040 1120 0000 0000 1320 1400 1440 1520 DEGS
RE 1.4 2.7 3.7 4.3 4.6 0.0 0.0 4.0 3.2 2.0 1.1 HHMM
L 2.2 3.3 8.7 24.2 94.2 0.0 0.0 -0.0 6.5 2.0 4.0 RE
MLT 9.4 10.3 10.7 11.3 12.6 0.0 0.0 21.5 21.8 21.8 10.2
MLAT ***** 27.79 51.21 66.53 78.26 0.00 0.00 61.90 44.07 9.39 ***** HRS
INVLAT 48.2 56.9 70.2 78.3 84.1 0.0 0.0 -0.0 66.8 45.3 60.0 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
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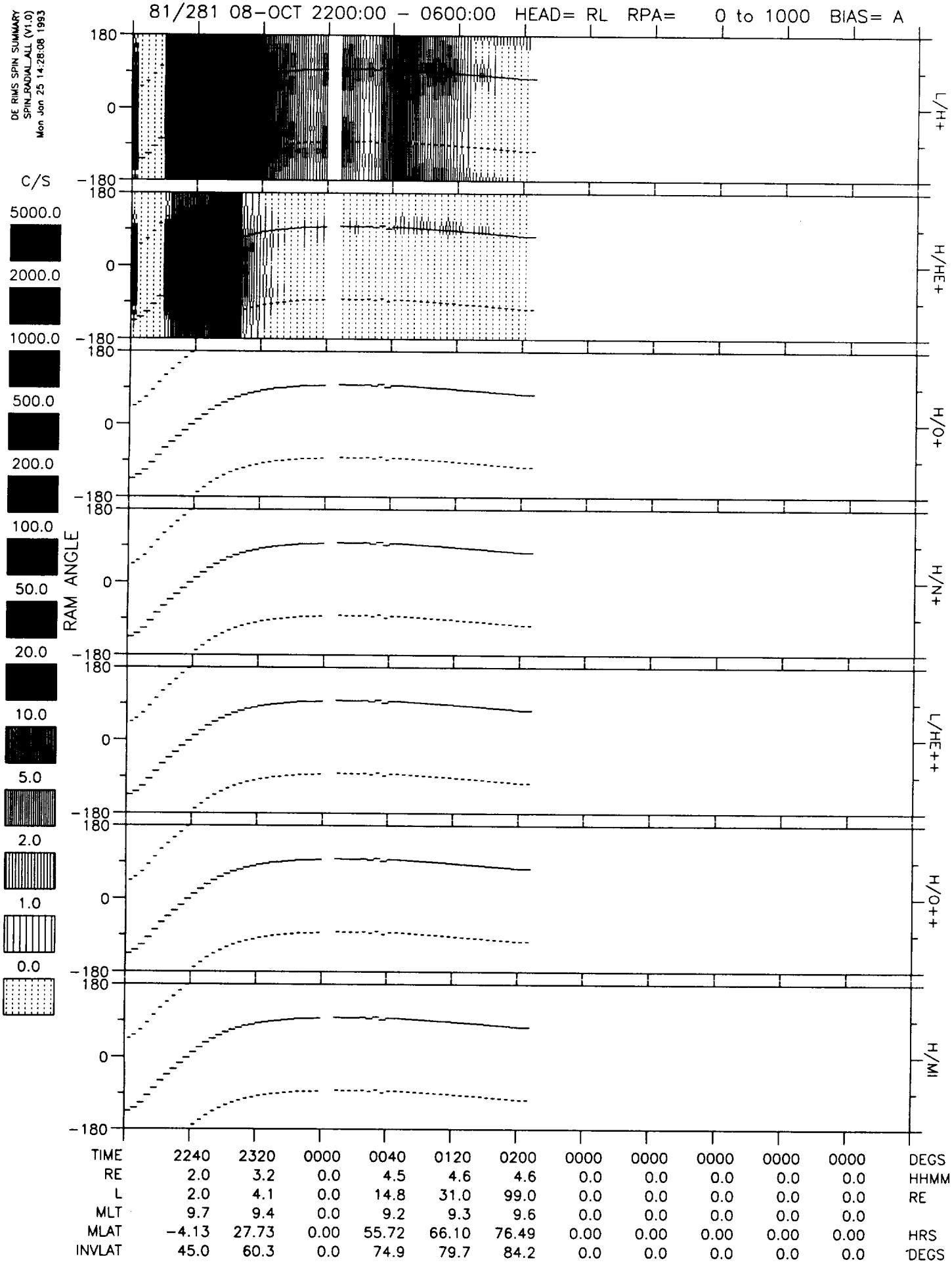
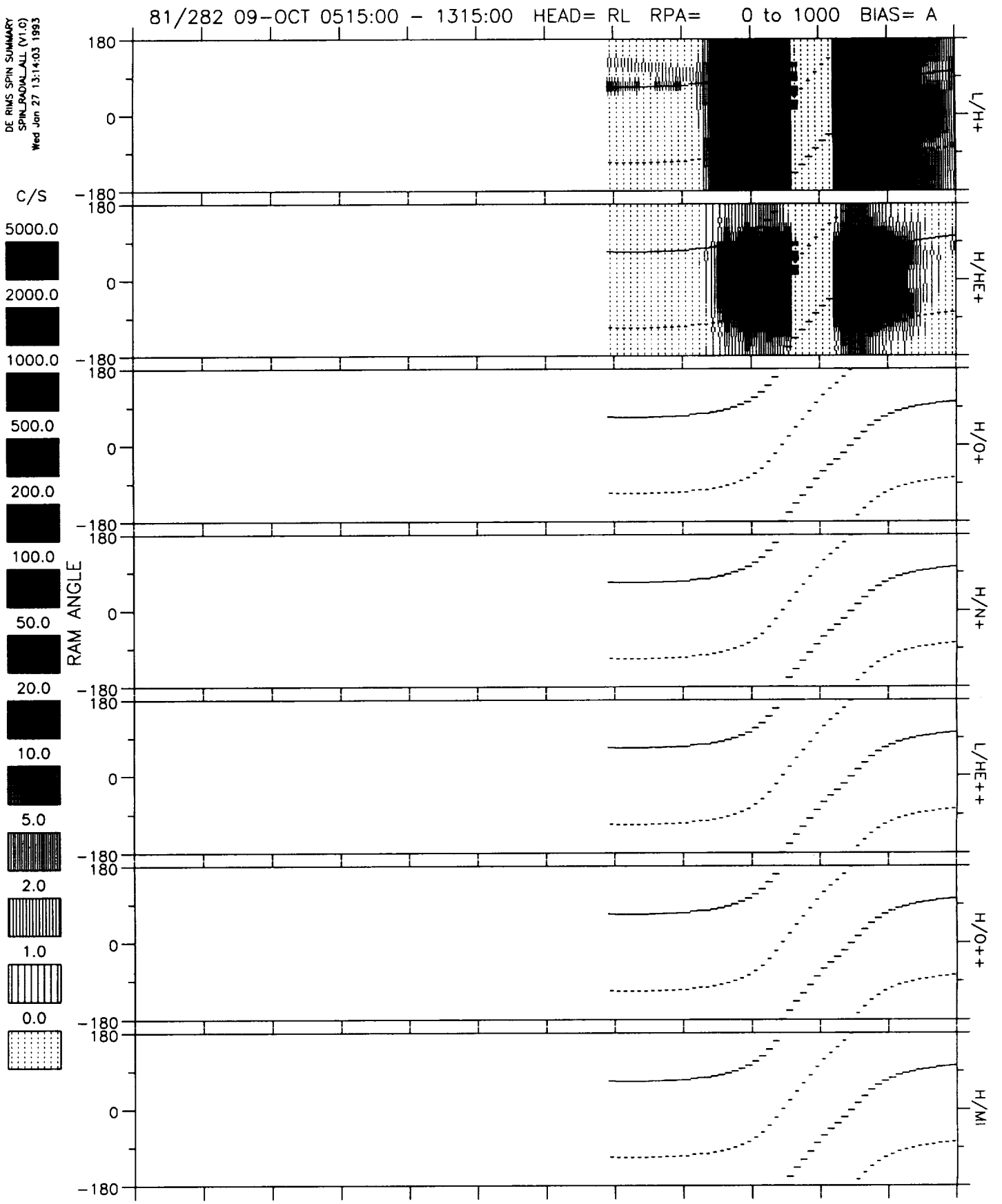
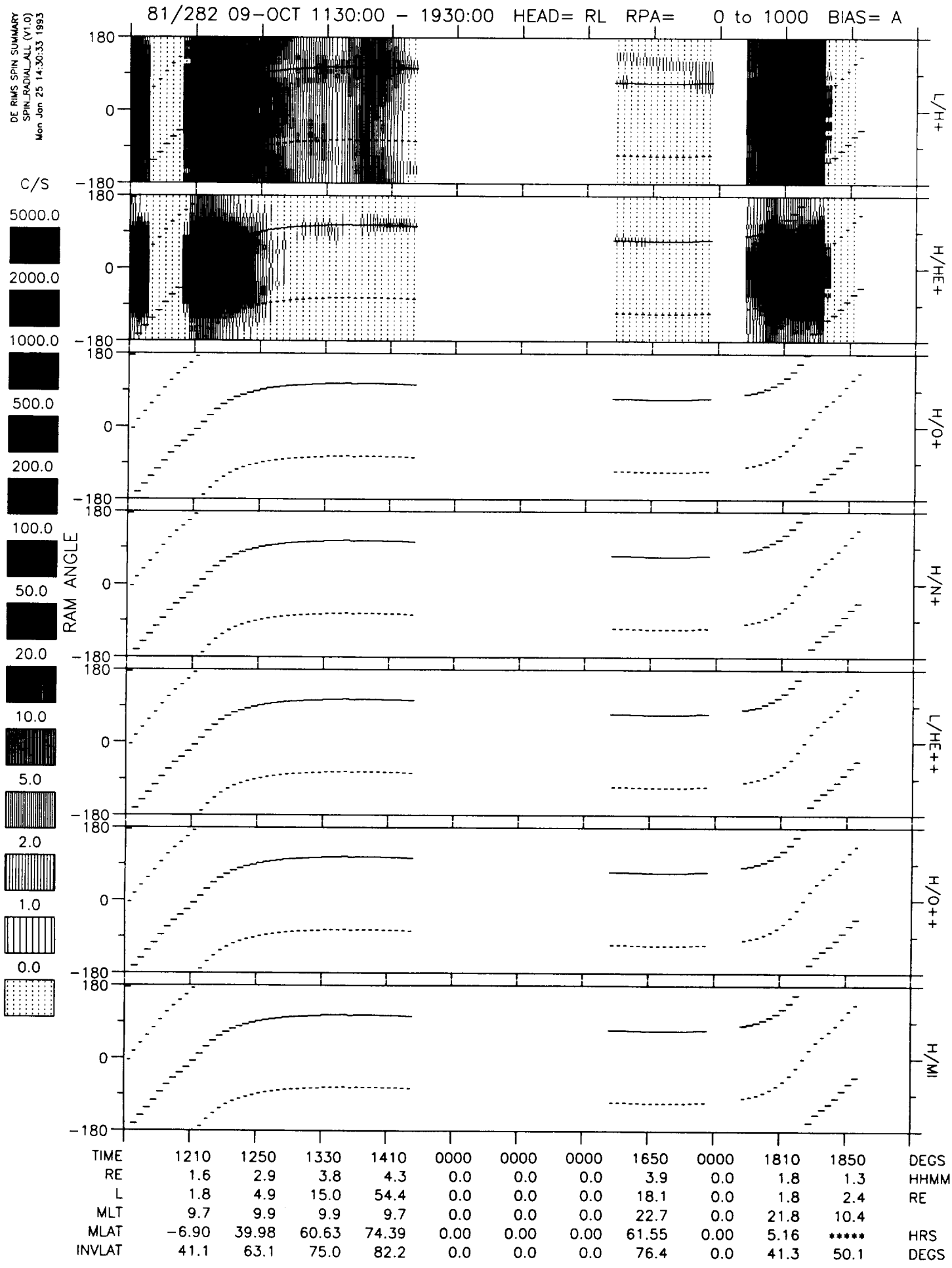
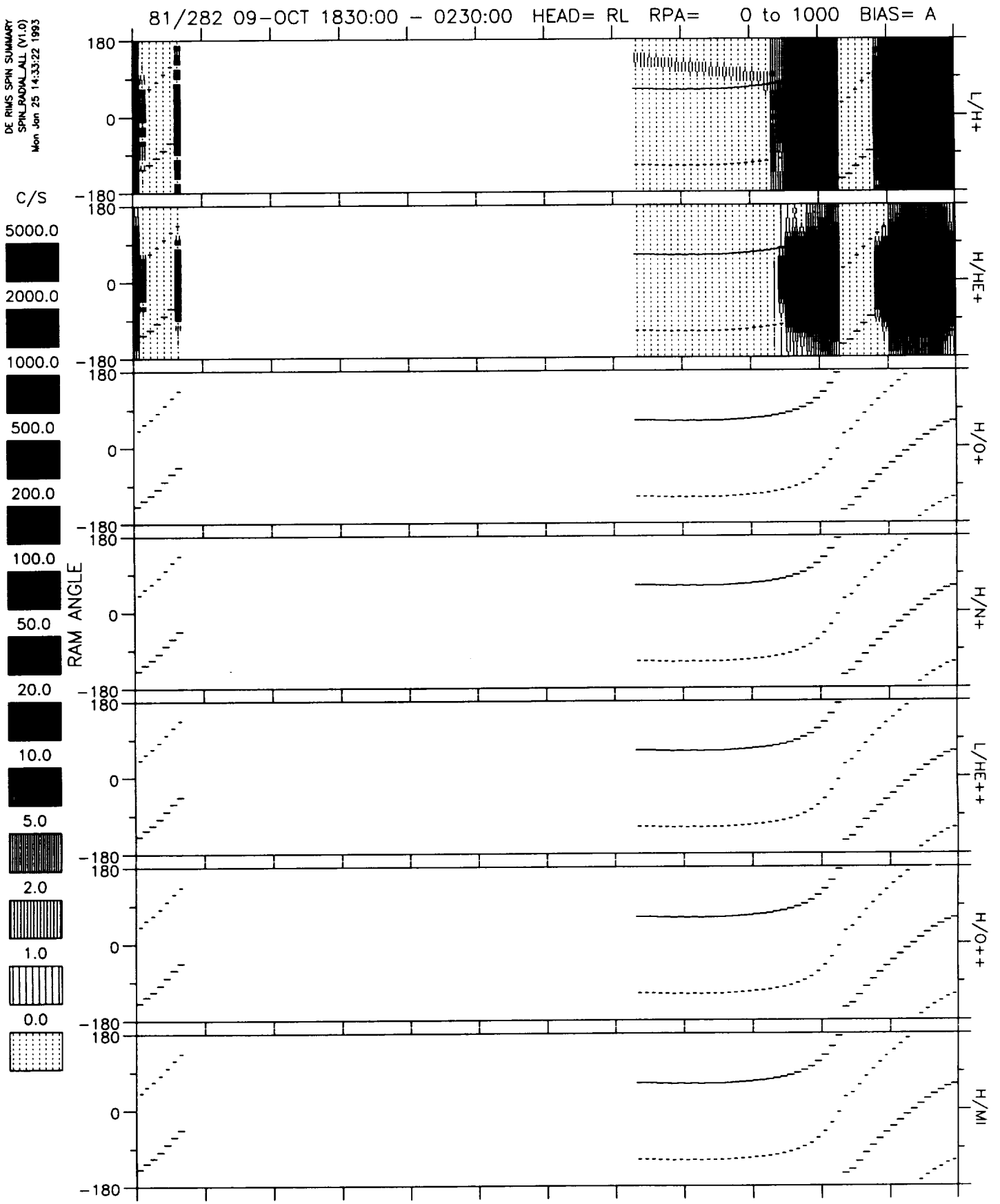
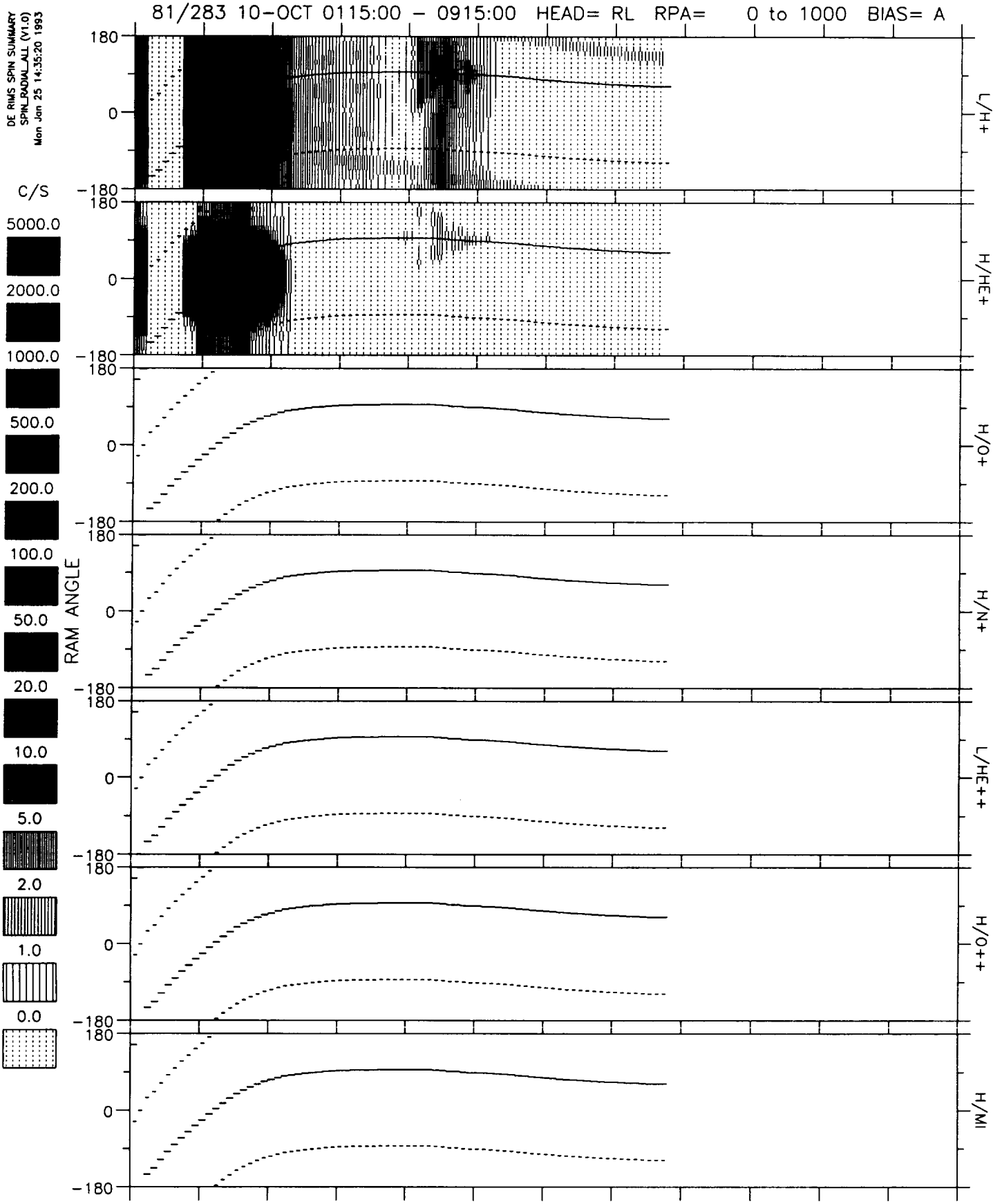
81/281 08-OCT 1500:00 - 2300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 2100 2140 2220 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 1.7 1.4 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 7.0 1.7 2.8 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 22.7 21.8 10.3
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 51.23 9.84 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 67.8 40.6 52.9 DEGS


81/281 08-OCT 2200:00 - 0600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Jon 25 14:28:08 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2240 2320 0000 0040 0120 0200 0000 0000 0000 0000 0000 DEGS
RE 2.0 3.2 0.0 4.5 4.6 4.6 0.0 0.0 0.0 0.0 0.0 HHMM
L 2.0 4.1 0.0 14.8 31.0 99.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 9.7 9.4 0.0 9.2 9.3 9.6 0.0 0.0 0.0 0.0 0.0
MLAT -4.13 27.73 0.00 55.72 66.10 76.49 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 45.0 60.3 0.0 74.9 79.7 84.2 0.0 0.0 0.0 0.0 0.0 DEGS

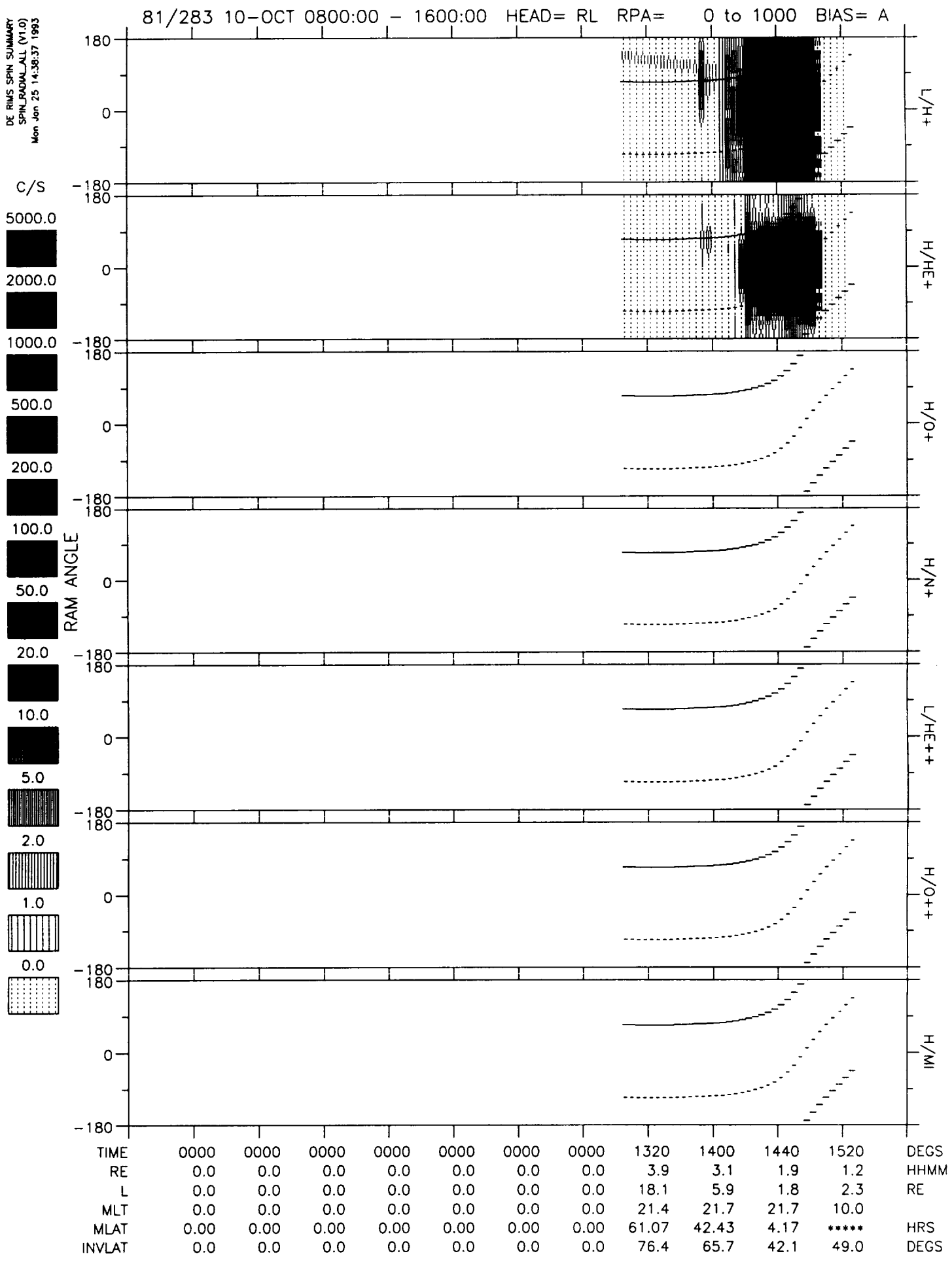

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Jan 27 13:14:03 1993
81/282 09-OCT 0515:00 - 1315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0000 0000 0000 0000 0000 0000 0955 1035 1115 1155 1235 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 3.9 3.1 1.9 1.2 2.5 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 24.1 6.7 1.9 2.9 3.2 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 20.3 21.1 21.7 9.2 9.9
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 65.23 46.66 9.01 ***** 27.94 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 78.2 67.3 43.6 54.0 55.8 DEGS

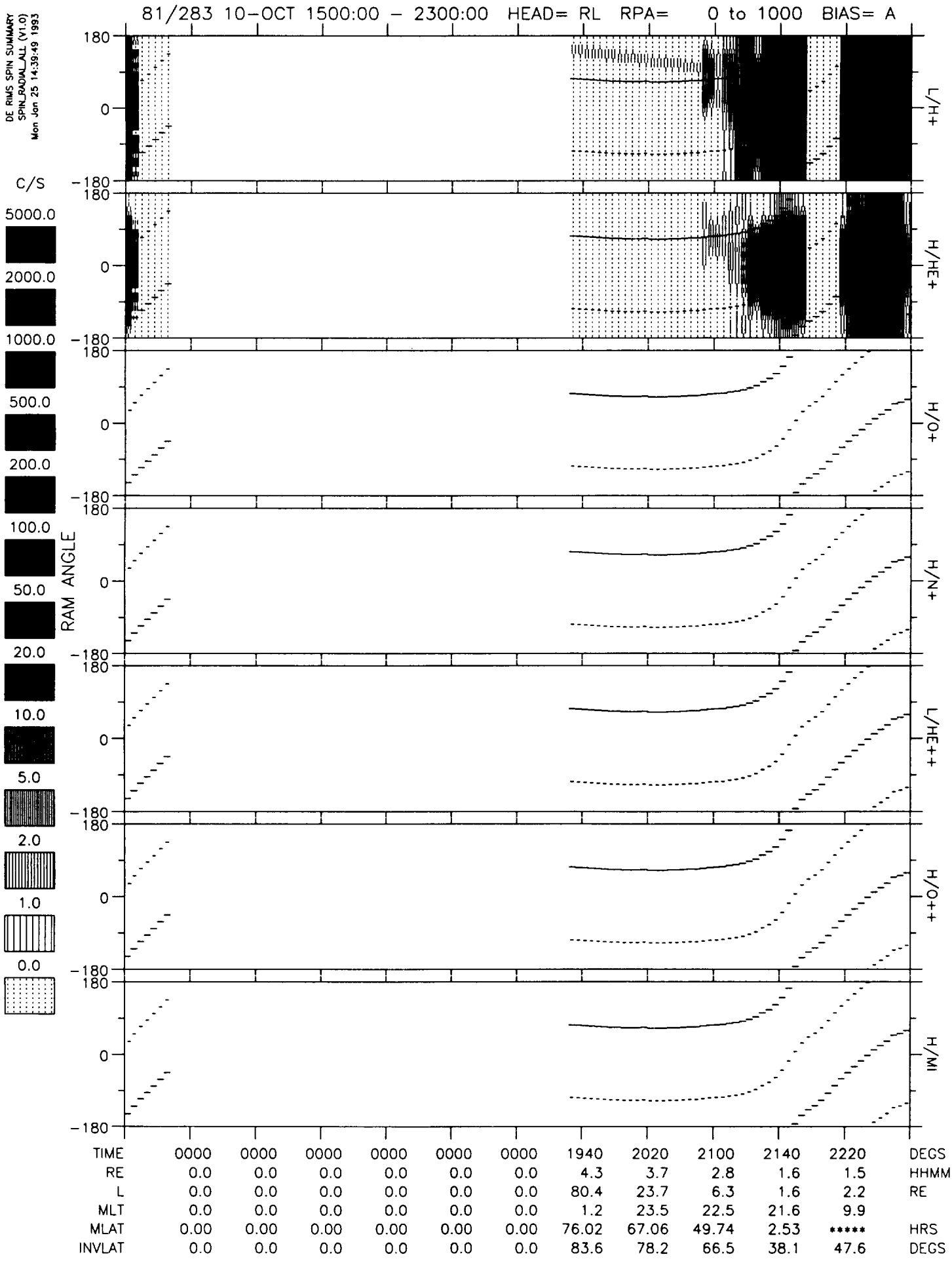

81/282 09-OCT 1130:00 - 1930:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Jan 25 14:30:33 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1210 1250 1330 1410 0000 0000 0000 1650 0000 1810 1850 DEGS
RE 1.6 2.9 3.8 4.3 0.0 0.0 0.0 3.9 0.0 1.8 1.3 HHMM
L 1.8 4.9 15.0 54.4 0.0 0.0 0.0 18.1 0.0 1.8 2.4 RE
MLT 9.7 9.9 9.9 9.7 0.0 0.0 0.0 22.7 0.0 21.8 10.4
MLAT -6.90 39.98 60.63 74.39 0.00 0.00 0.00 61.55 0.00 5.16 ***** HRS
INVLAT 41.1 63.1 75.0 82.2 0.0 0.0 0.0 76.4 0.0 41.3 50.1 DEGS

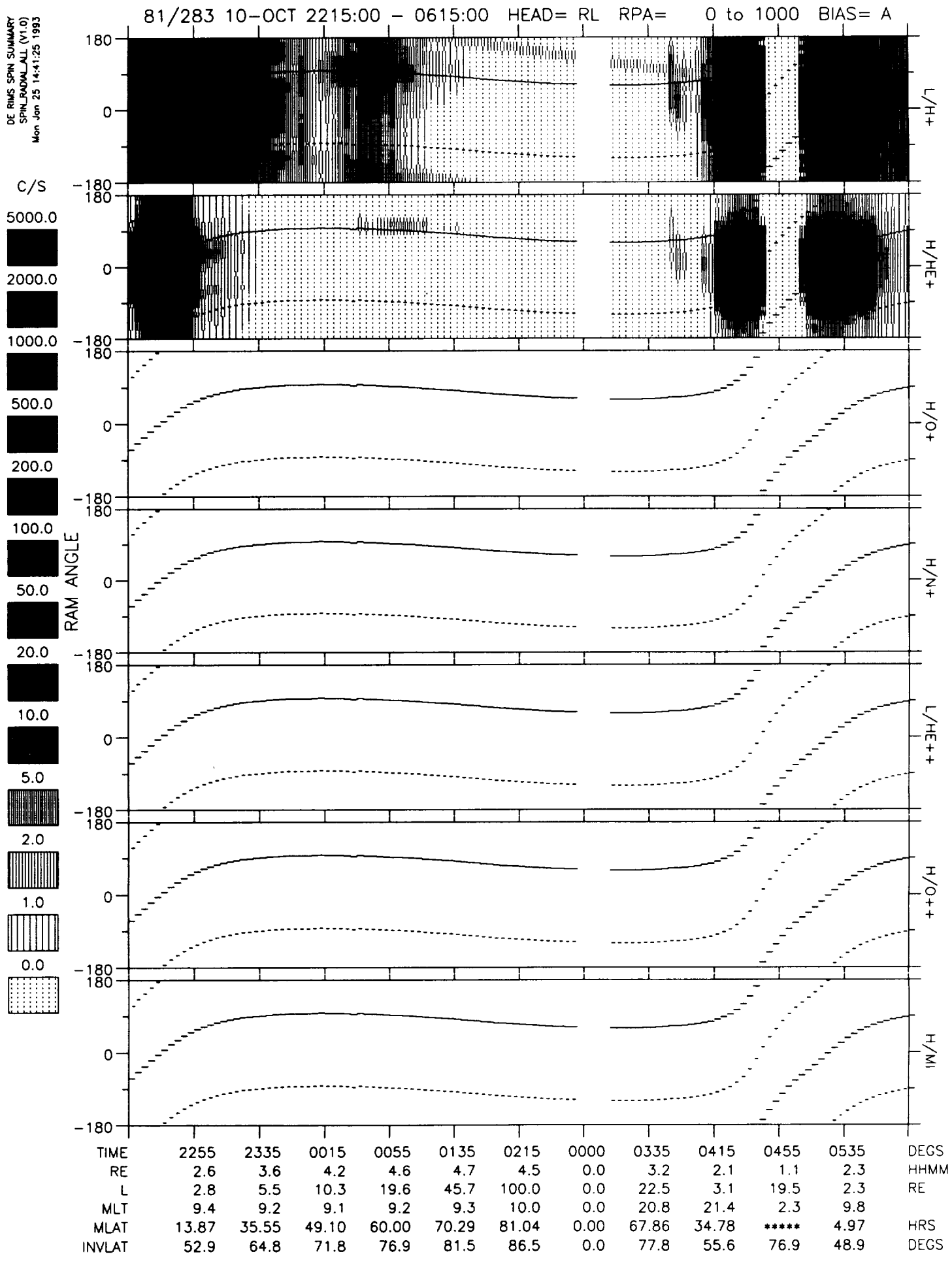

81/282 09-OCT 1830:00 - 0230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Jan 25 14:33:22 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0000 0000 0000 0000 0000 0000 0000 2350 0030 0110 0150 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.7 2.8 1.5 1.6 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 50.2 8.3 1.5 2.1 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 23.3 22.0 21.6 9.6
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 75.75 56.12 1.94 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 81.9 69.6 36.1 46.8 DEGS

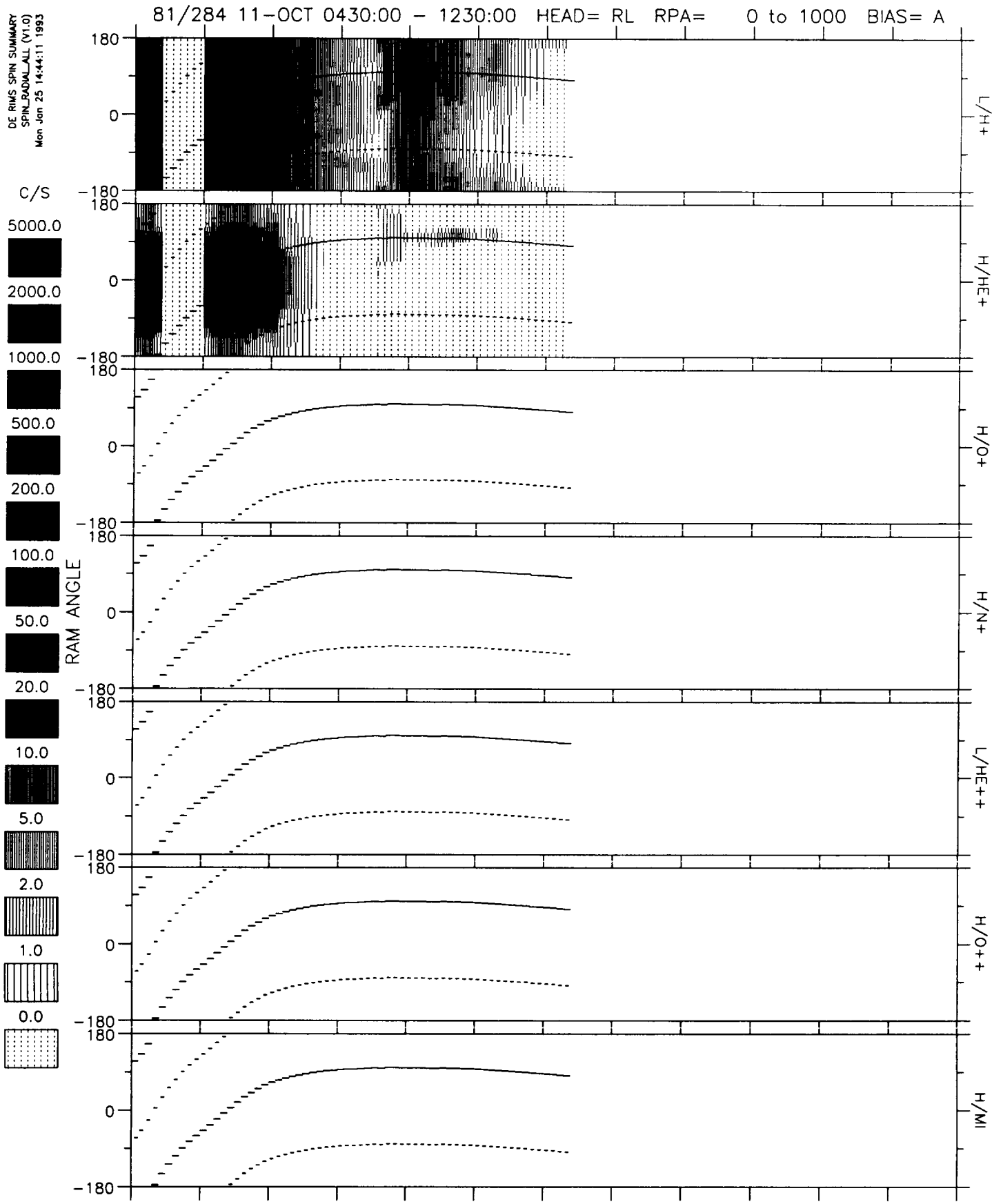


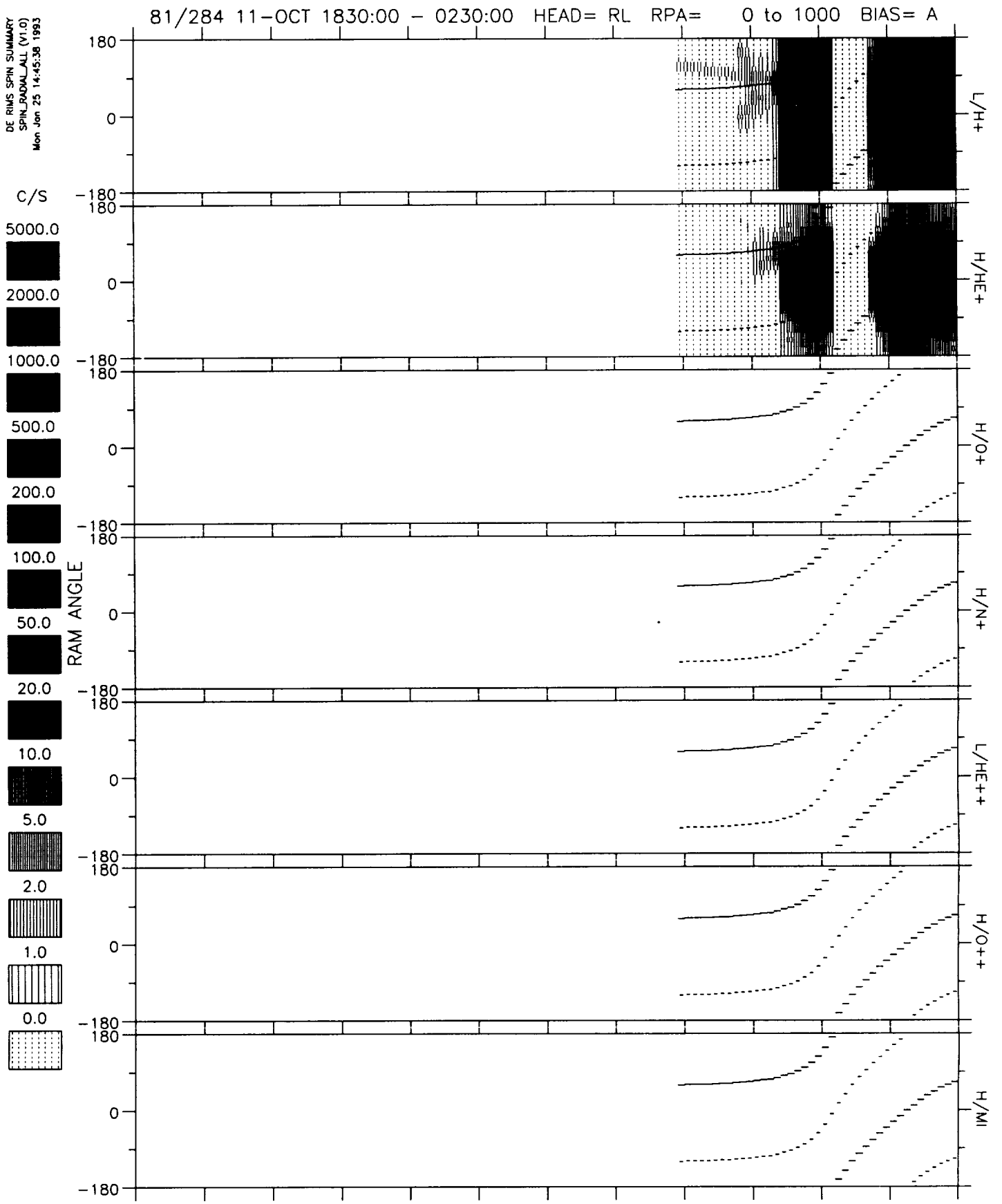
TIME	0155	0235	0315	0355	0435	0515	0555	0000	0000	0000	0000	DEGS
RE	1.8	3.0	3.9	4.4	4.6	4.6	4.4	0.0	0.0	0.0	0.0	HHMM
L	1.9	3.4	6.7	12.8	27.2	77.5	100.0	0.0	0.0	0.0	0.0	RE
MLT	9.6	9.7	9.9	10.2	10.8	12.1	15.9	0.0	0.0	0.0	0.0	
MLAT	*****	19.86	39.47	53.23	64.77	74.95	80.24	0.00	0.00	0.00	0.00	HRS
INVLAT	44.2	57.2	67.2	73.8	78.9	83.5	85.9	0.0	0.0	0.0	0.0	DEGS

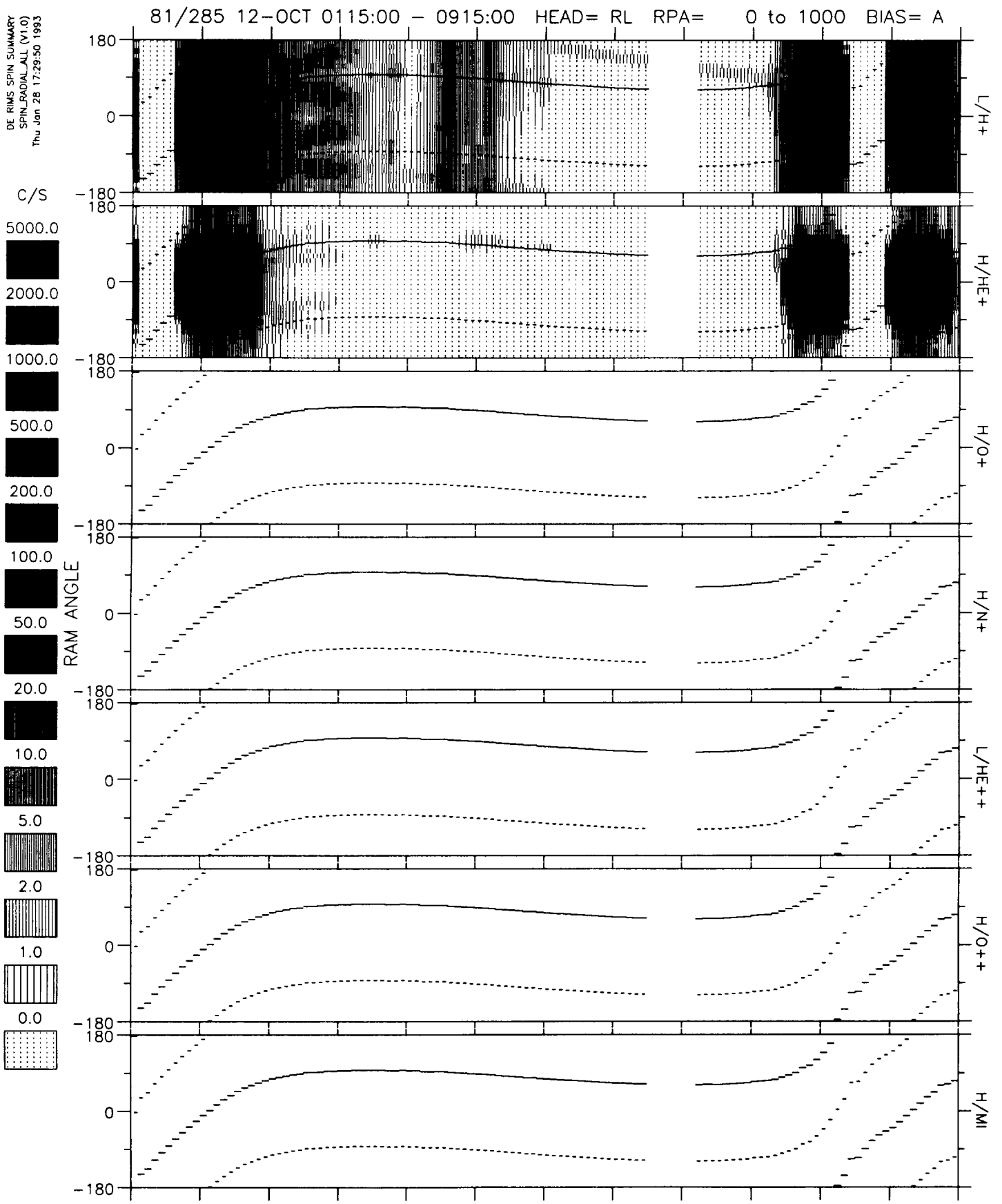

81/283 10-OCT 0800:00 - 1600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Jon 25 14:38:37 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 1320 1400 1440 1520 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.9 3.1 1.9 1.2 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 18.1 5.9 1.8 2.3 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 21.4 21.7 21.7 10.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 61.07 42.43 4.17 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 76.4 65.7 42.1 49.0 DEGS

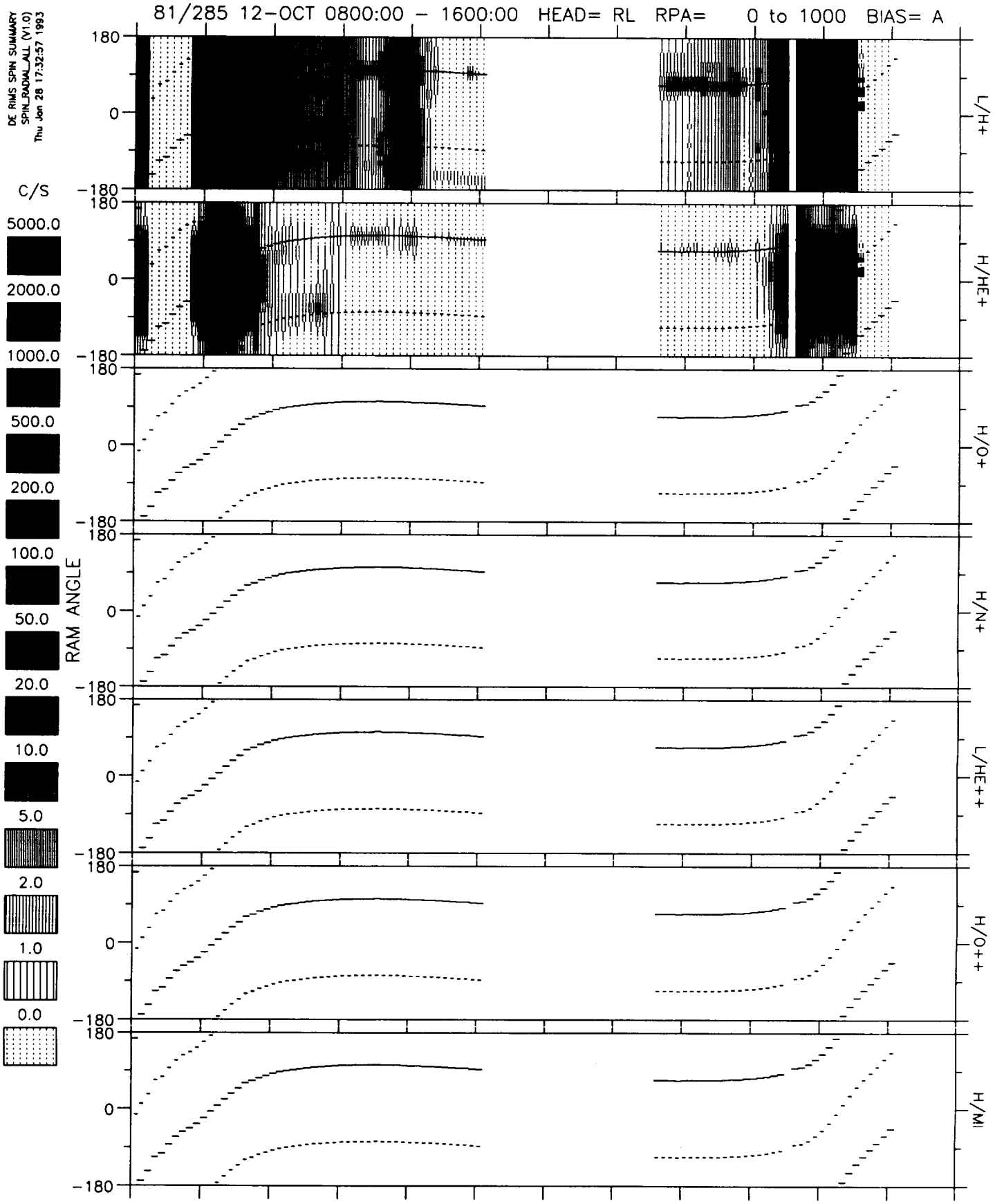

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Jan 25 14:39:49 1993
81/283 10-OCT 1500:00 - 2300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 1940 2020 2100 2140 2220 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 4.3 3.7 2.8 1.6 1.5 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 80.4 23.7 6.3 1.6 2.2 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 1.2 23.5 22.5 21.6 9.9
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 76.02 67.06 49.74 2.53 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 83.6 78.2 66.5 38.1 47.6 DEGS

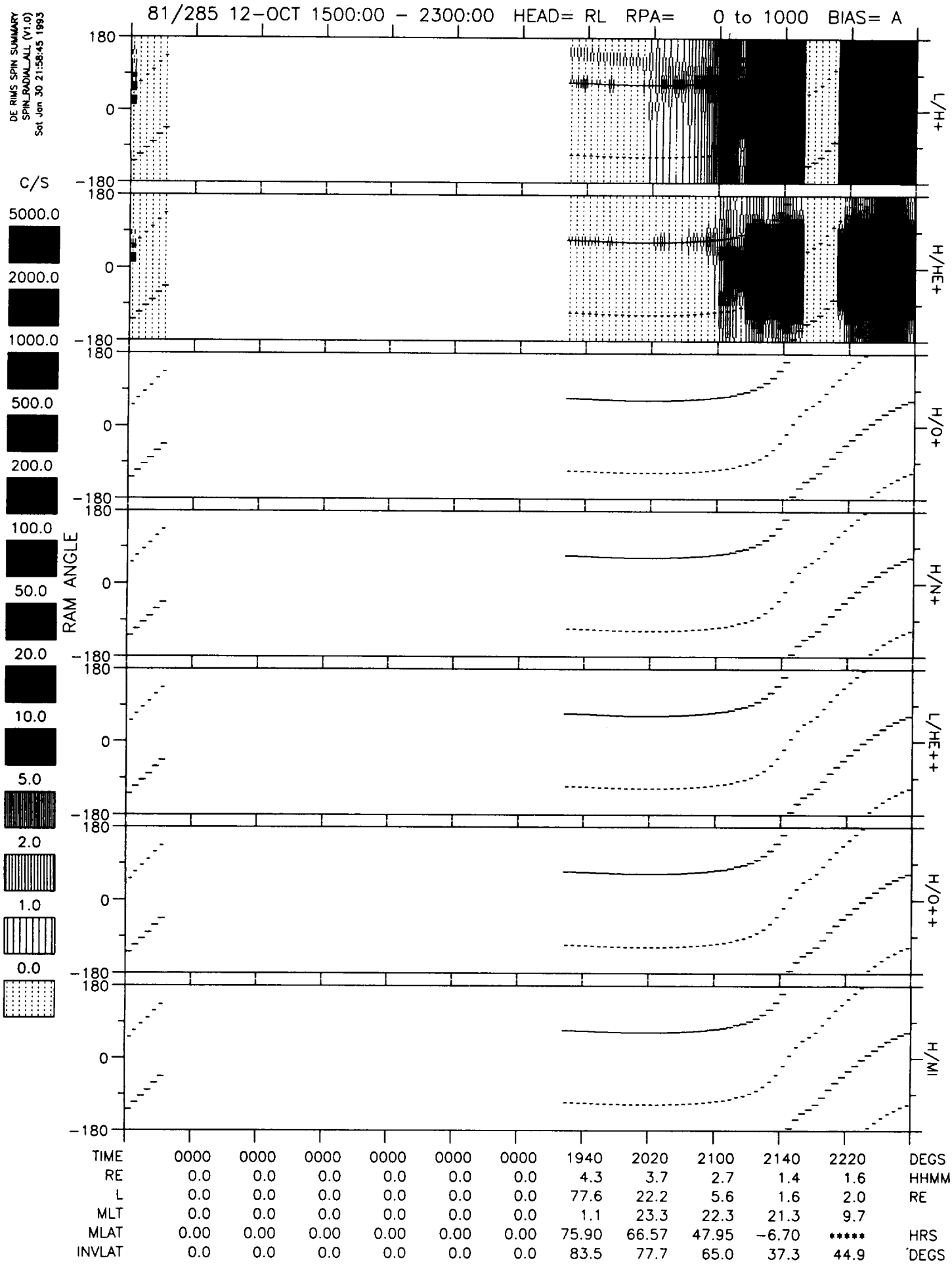

81/283 10-OCT 2215:00 - 0615:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Jon 25 14:41:25 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2255 2335 0015 0055 0135 0215 0000 0335 0415 0455 0535 DEGS
RE 2.6 3.6 4.2 4.6 4.7 4.5 0.0 3.2 2.1 1.1 2.3 HHMM
L 2.8 5.5 10.3 19.6 45.7 100.0 0.0 22.5 3.1 19.5 2.3 RE
MLT 9.4 9.2 9.1 9.2 9.3 10.0 0.0 20.8 21.4 2.3 9.8
MLAT 13.87 35.55 49.10 60.00 70.29 81.04 0.00 67.86 34.78 ***** 4.97 HRS
INVLAT 52.9 64.8 71.8 76.9 81.5 86.5 0.0 77.8 55.6 76.9 48.9 DEGS

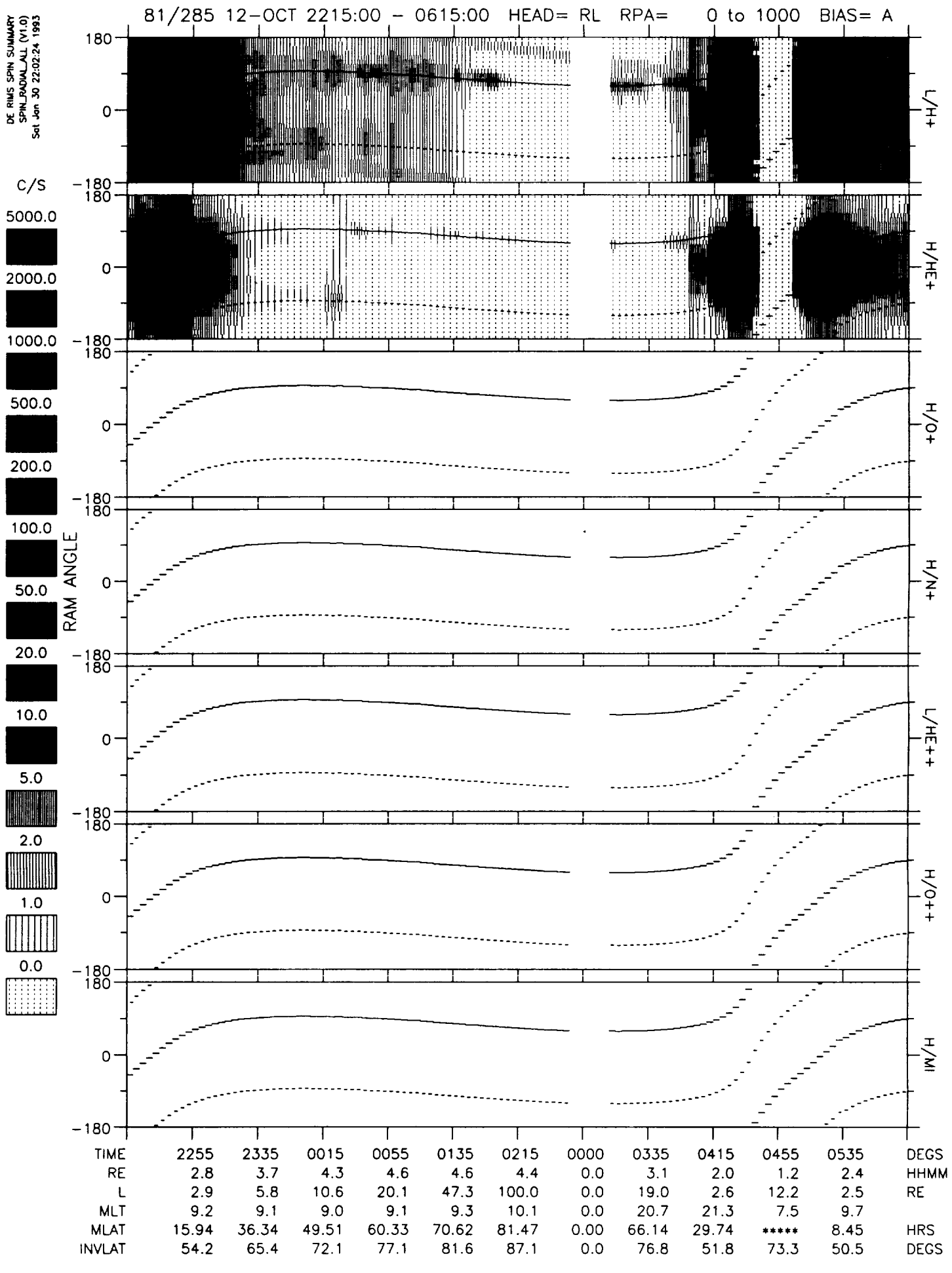

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Jan 25 14:44:11 1993
81/284 11-OCT 0430:00 - 1230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0510 0550 0630 0710 0750 0830 0000 0000 0000 0000 0000 DEGS
RE 1.5 2.8 3.7 4.3 4.6 4.6 0.0 0.0 0.0 0.0 0.0 HHMM
L 2.4 3.1 6.5 14.0 33.8 100.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 9.3 10.0 10.4 10.9 11.9 14.0 0.0 0.0 0.0 0.0 0.0
MLAT ***** 18.53 41.40 56.56 68.46 77.21 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 49.6 55.1 67.0 74.5 80.1 84.3 0.0 0.0 0.0 0.0 0.0 DEGS

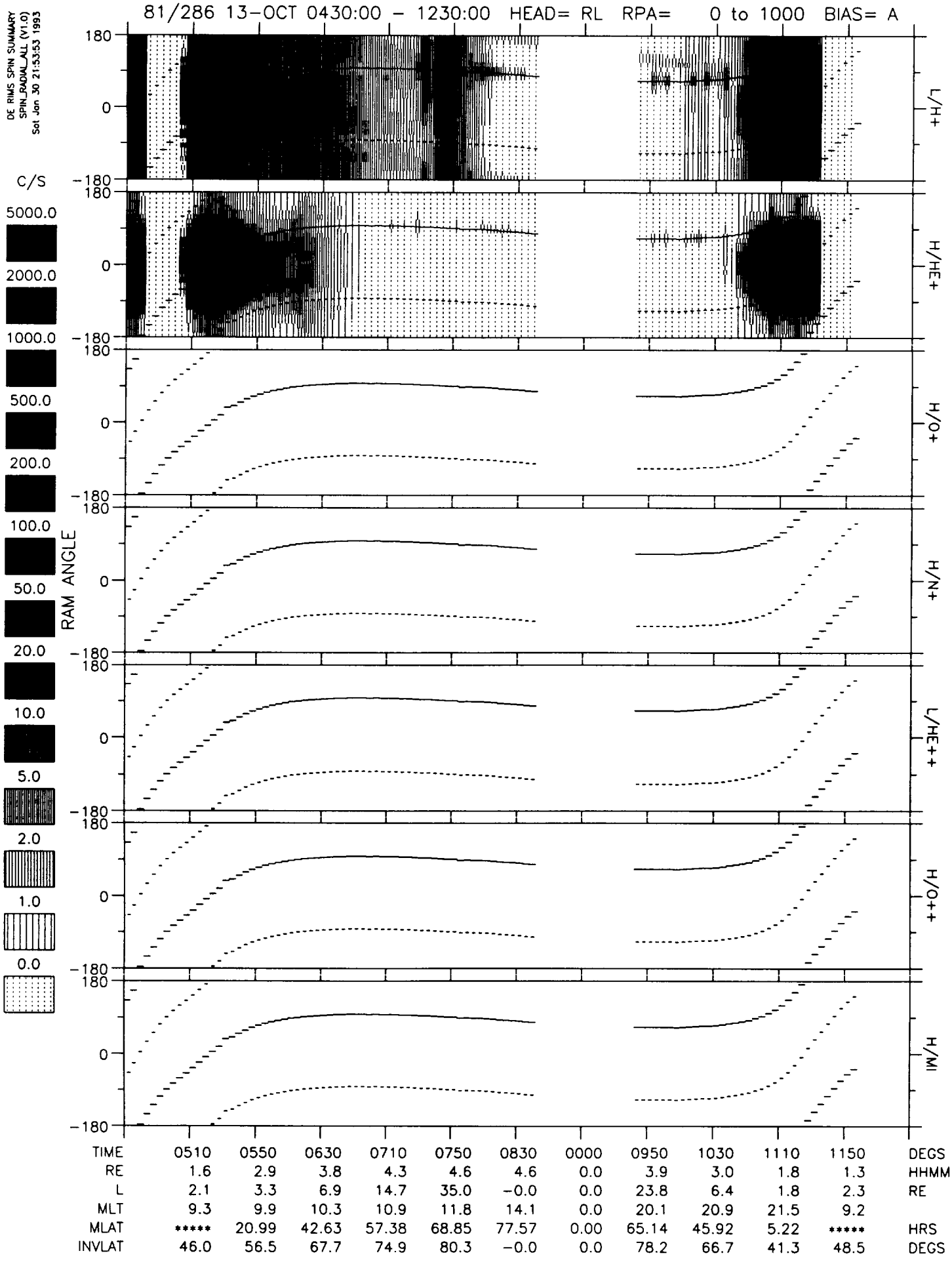

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Mon Jan 25 14:45:38 1993
81/284 11-OCT 1830:00 - 0230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 2350 0030 0110 0150 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.6 2.7 1.3 1.7 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 45.5 7.2 1.4 2.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 23.0 21.8 21.4 9.5
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 75.16 53.92 -8.84 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 81.5 68.1 33.3 44.8 DEGS

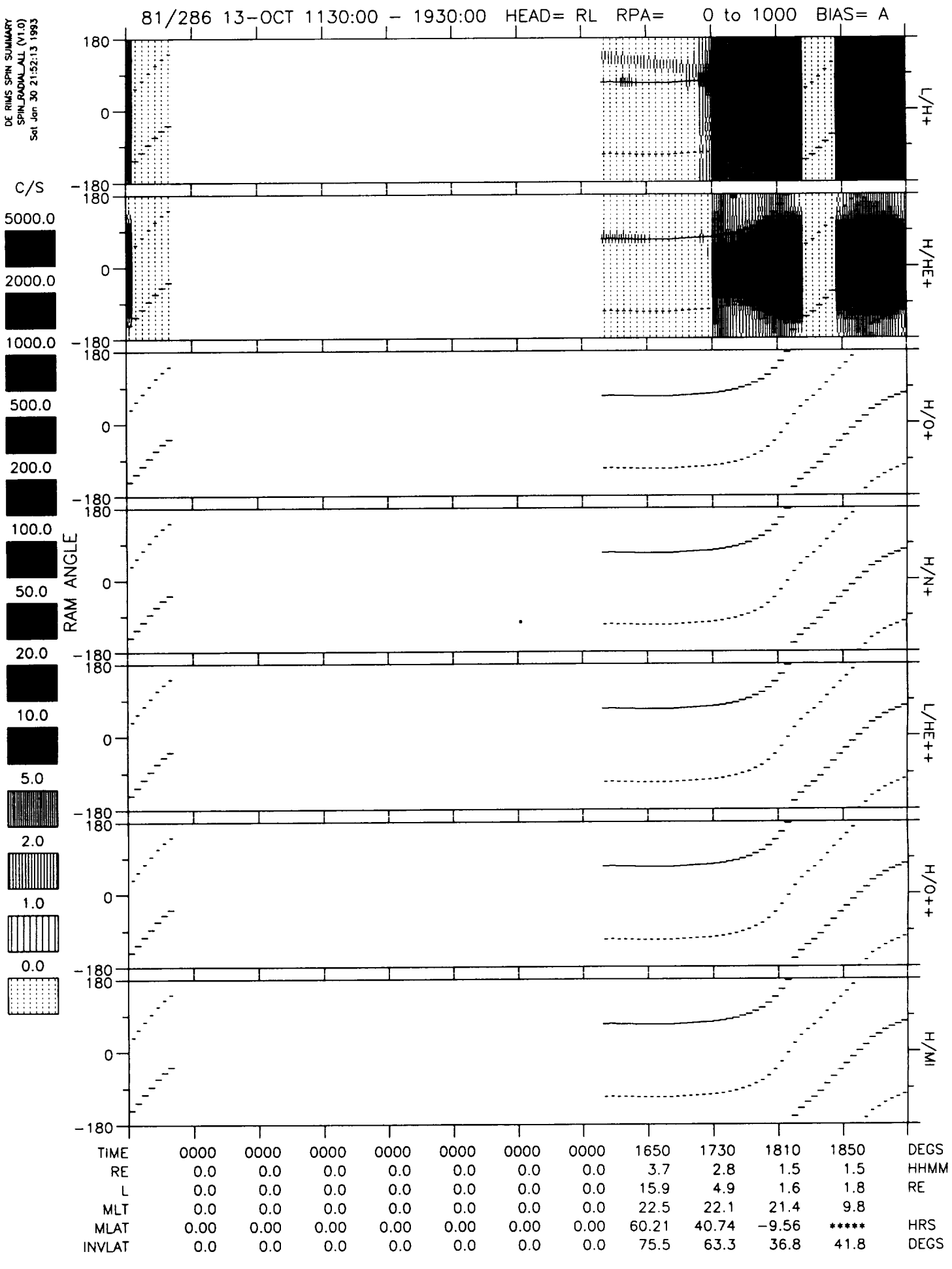

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Jan 28 17:29:50 1993
81/285 12-OCT 0115:00 – 0915:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0155 0235 0315 0355 0435 0515 0555 0000 0715 0755 0835 DEGS
RE 1.9 3.1 3.9 4.4 4.6 4.6 4.3 0.0 2.8 1.5 1.5 HHMM
L 1.9 3.6 7.0 -0.0 -0.0 -0.0 100.0 0.0 6.4 1.5 2.1 RE
MLT 9.5 9.6 9.8 10.1 10.7 12.1 16.1 0.0 20.8 21.7 9.3
MLAT ***** 21.66 40.39 53.85 65.24 75.32 79.98 0.00 48.73 -3.35 ***** HRS
INVLAT 44.3 58.3 67.8 -0.0 -0.0 -0.0 85.7 0.0 66.7 35.7 46.3 DEGS

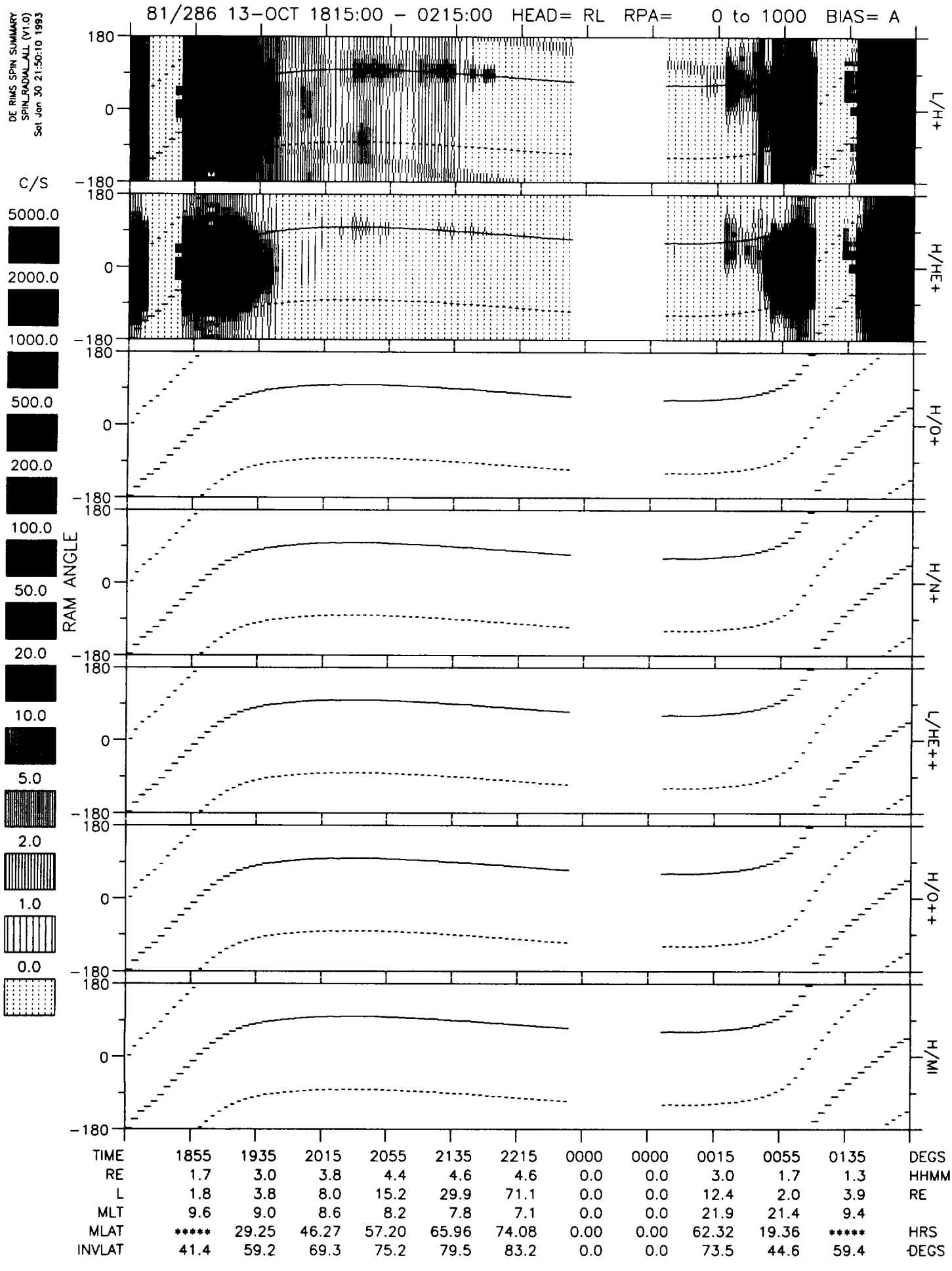

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Jan 28 17:32:57 1993
81/285 12-OCT 0800:00 - 1600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0840 0920 1000 1040 1120 0000 0000 1320 1400 1440 1520 DEGS
RE 1.7 2.9 3.8 4.4 4.6 0.0 0.0 3.8 3.0 1.7 1.3 HHMM
L 1.9 4.0 10.1 28.3 100.0 0.0 0.0 -0.0 5.4 1.7 1.9 RE
MLT 9.5 10.1 10.6 11.1 12.4 0.0 0.0 21.4 21.6 21.6 9.8
MLAT ***** 32.73 53.73 68.24 79.17 0.00 0.00 60.22 40.64 -2.12 ***** HRS
INVLAT 44.3 59.9 71.7 79.2 84.5 0.0 0.0 -0.0 64.5 39.1 44.3 DEGS

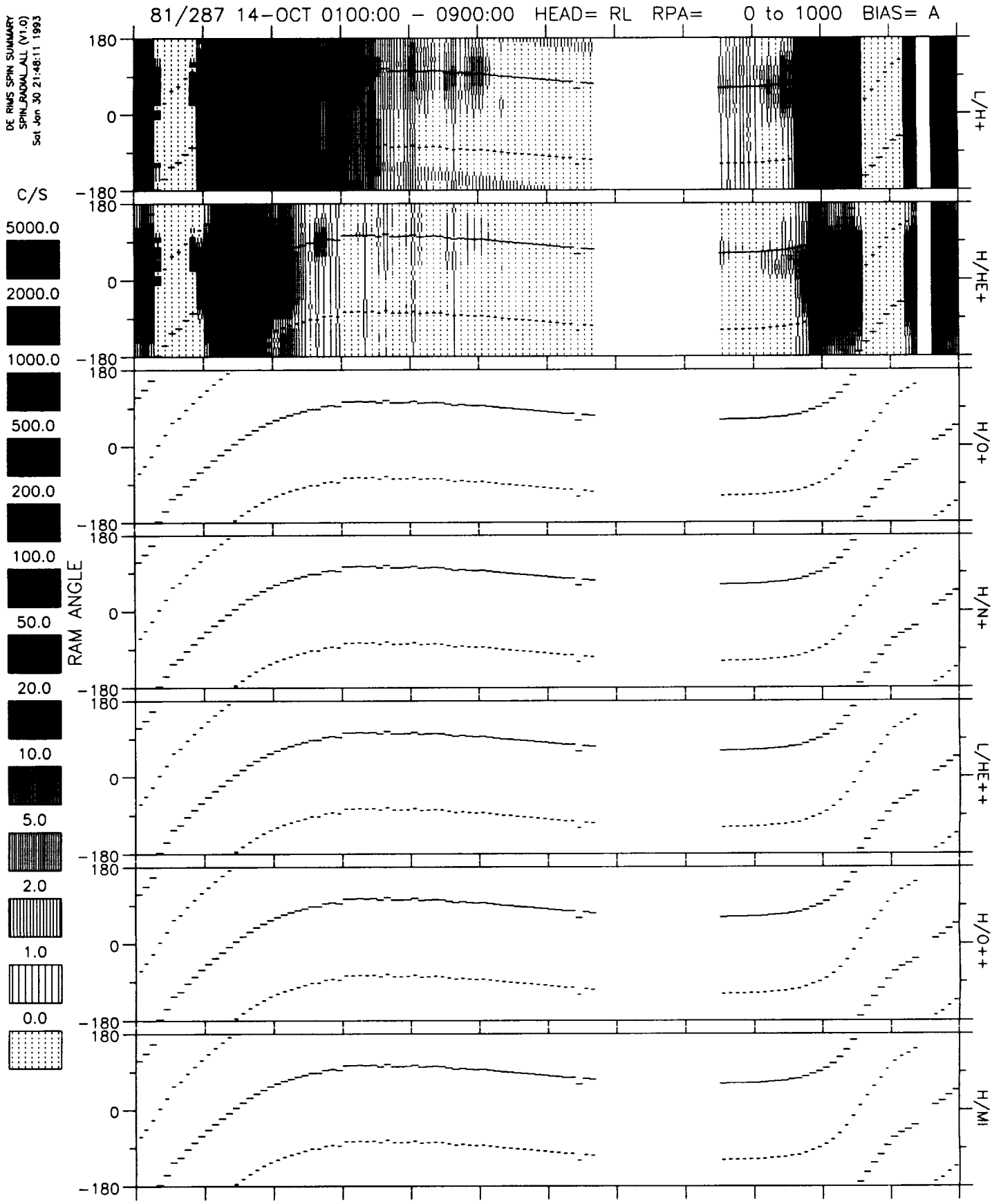

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 21:58:45 1993
81/285 12-OCT 1500:00 - 2300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 1940 2020 2100 2140 2220 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 4.3 3.7 2.7 1.4 1.6 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 77.6 22.2 5.6 1.6 2.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 1.1 23.3 22.3 21.3 9.7
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 75.90 66.57 47.95 -6.70 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 83.5 77.7 65.0 37.3 44.9 DEGS

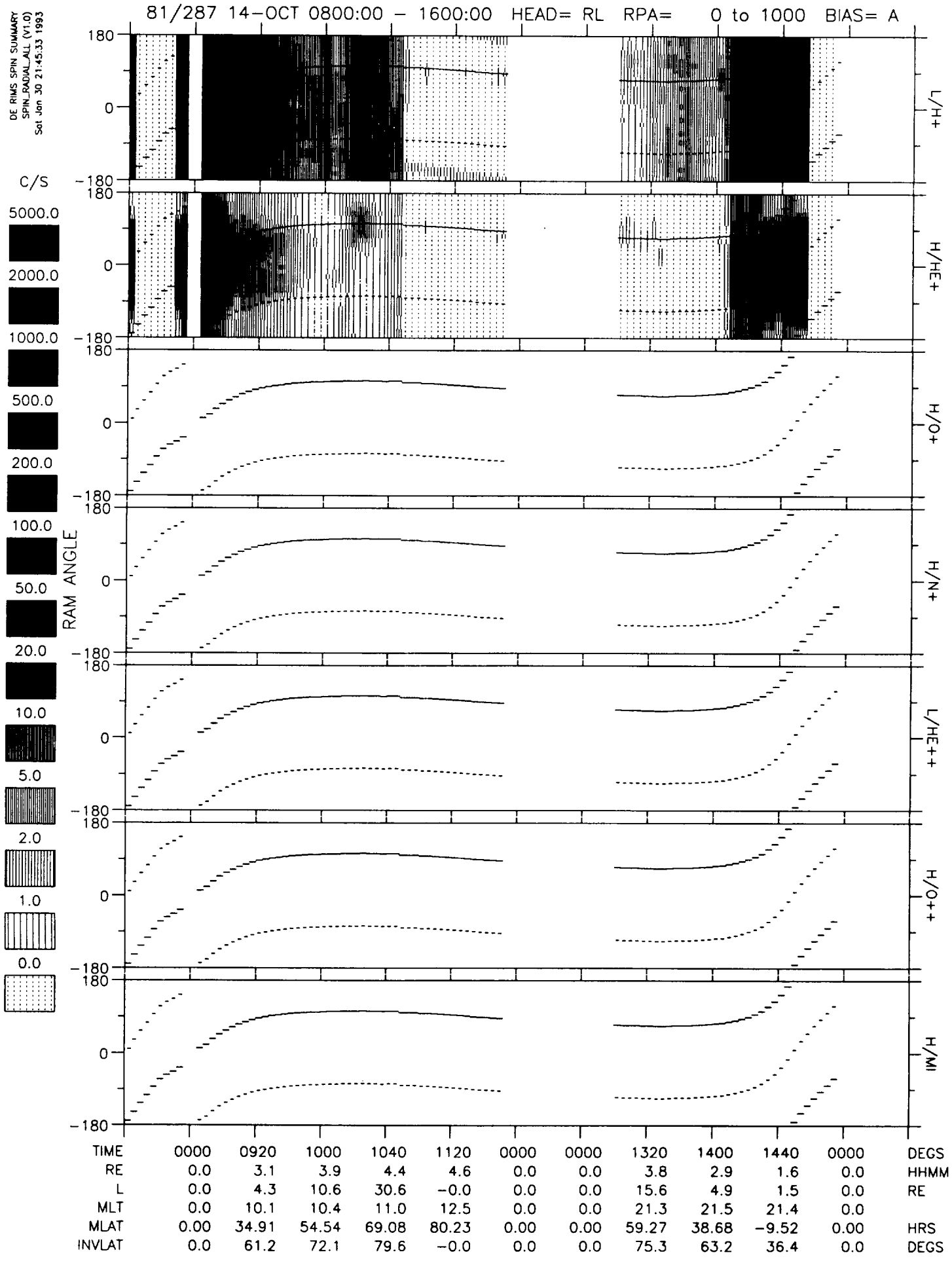

81/285 12-OCT 2215:00 - 0615:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 22:02:24 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2255 2335 0015 0055 0135 0215 0000 0335 0415 0455 0535 DEGS
RE 2.8 3.7 4.3 4.6 4.6 4.4 0.0 3.1 2.0 1.2 2.4 HHMM
L 2.9 5.8 10.6 20.1 47.3 100.0 0.0 19.0 2.6 12.2 2.5 RE
MLT 9.2 9.1 9.0 9.1 9.3 10.1 0.0 20.7 21.3 7.5 9.7
MLAT 15.94 36.34 49.51 60.33 70.62 81.47 0.00 66.14 29.74 ***** 8.45 HRS
INVLAT 54.2 65.4 72.1 77.1 81.6 87.1 0.0 76.8 51.8 73.3 50.5 DEGS

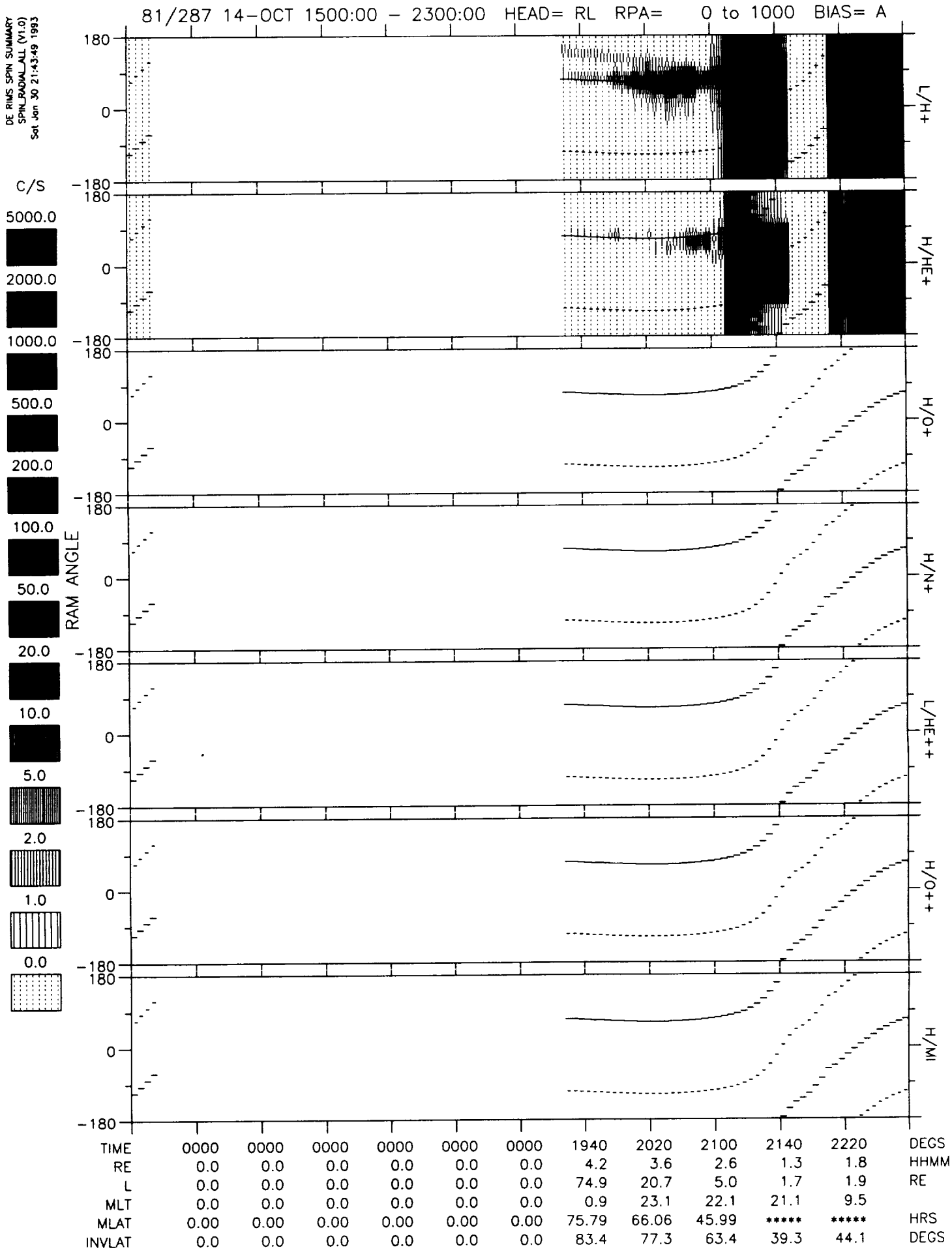

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 21:53:53 1993
81/286 13-OCT 0430:00 - 1230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0510 0550 0630 0710 0750 0830 0000 0950 1030 1110 1150 DEGS
RE 1.6 2.9 3.8 4.3 4.6 4.6 0.0 3.9 3.0 1.8 1.3 HHMM
L 2.1 3.3 6.9 14.7 35.0 -0.0 0.0 23.8 6.4 1.8 2.3 RE
MLT 9.3 9.9 10.3 10.9 11.8 14.1 0.0 20.1 20.9 21.5 9.2
MLAT ***** 20.99 42.63 57.38 68.85 77.57 0.00 65.14 45.92 5.22 ***** HRS
INVLAT 46.0 56.5 67.7 74.9 80.3 -0.0 0.0 78.2 66.7 41.3 48.5 DEGS

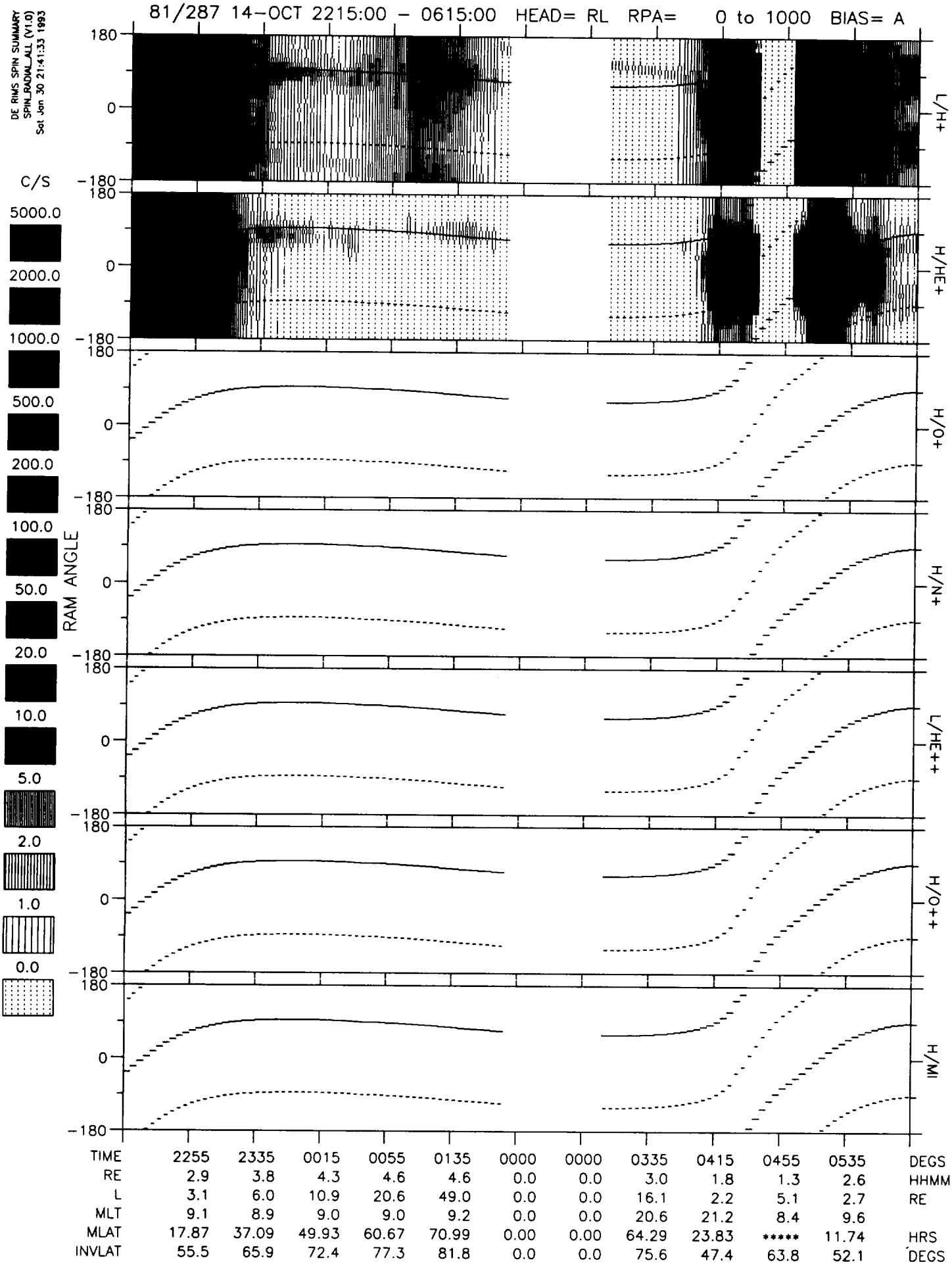

81/286 13-OCT 1130:00 – 1930:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 21:52:13 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 1650 1730 1810 1850 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.7 2.8 1.5 1.5 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 15.9 4.9 1.6 1.8 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 22.5 22.1 21.4 9.8
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 60.21 40.74 -9.56 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 75.5 63.3 36.8 41.8 DEGS

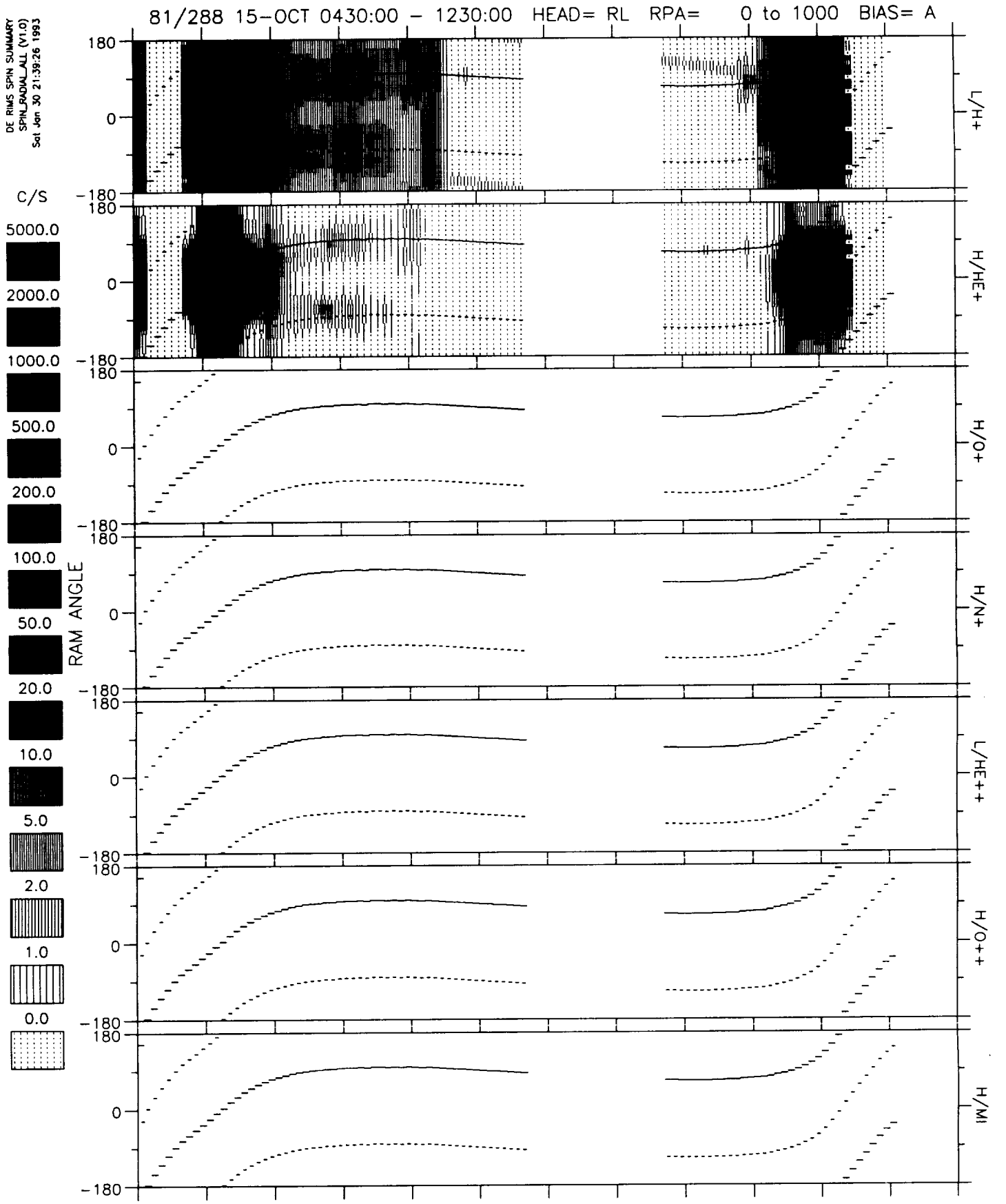

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 21:50:10 1993
81/286 13-OCT 1815:00 - 0215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1855 1935 2015 2055 2135 2215 0000 0000 0015 0055 0135 DEGS
RE 1.7 3.0 3.8 4.4 4.6 4.6 0.0 0.0 3.0 1.7 1.3 HHMM
L 1.8 3.8 8.0 15.2 29.9 71.1 0.0 0.0 12.4 2.0 3.9 RE
MLT 9.6 9.0 8.6 8.2 7.8 7.1 0.0 0.0 21.9 21.4 9.4
MLAT ***** 29.25 46.27 57.20 65.96 74.08 0.00 0.00 62.32 19.36 ***** HRS
INVLAT 41.4 59.2 69.3 75.2 79.5 83.2 0.0 0.0 73.5 44.6 59.4 DEGS

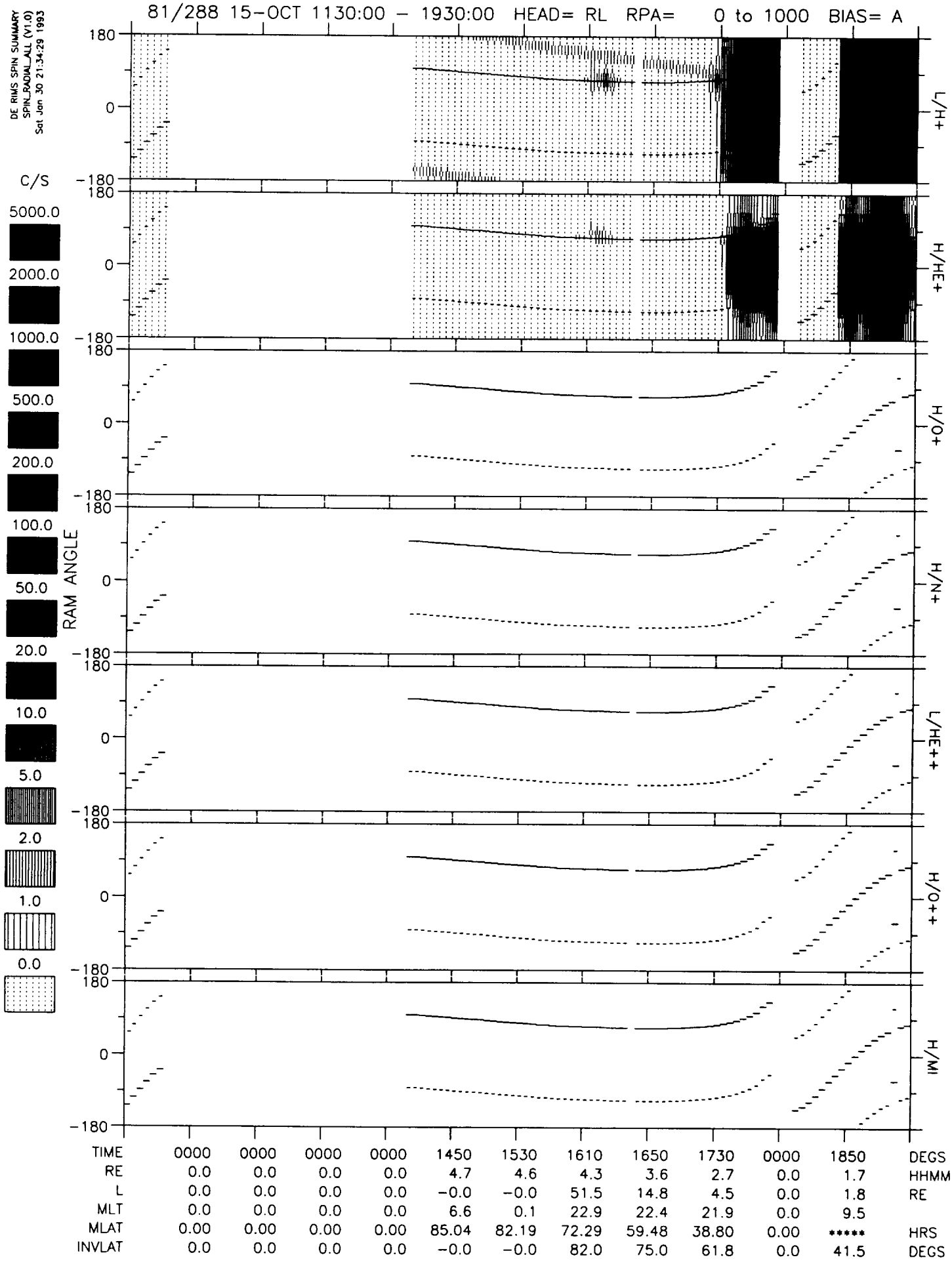

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 21:48:11 1993
81/287 14-OCT 0100:00 - 0900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0140 0220 0300 0340 0420 0500 0000 0000 0700 0740 0820 DEGS
RE 1.5 2.8 3.7 4.3 4.6 4.6 0.0 0.0 3.1 1.9 1.2 HHMM
L 2.4 3.0 5.8 10.8 21.6 54.7 0.0 0.0 10.2 2.1 4.3 RE
MLT 9.4 9.4 9.6 9.9 10.4 11.4 0.0 0.0 20.4 21.3 8.3
MLAT ***** 13.70 35.34 49.84 61.66 72.23 0.00 0.00 56.46 18.64 ***** HRS
INVLAT 50.1 54.4 65.4 72.3 77.6 82.2 0.0 0.0 71.7 46.0 61.1 DEGS

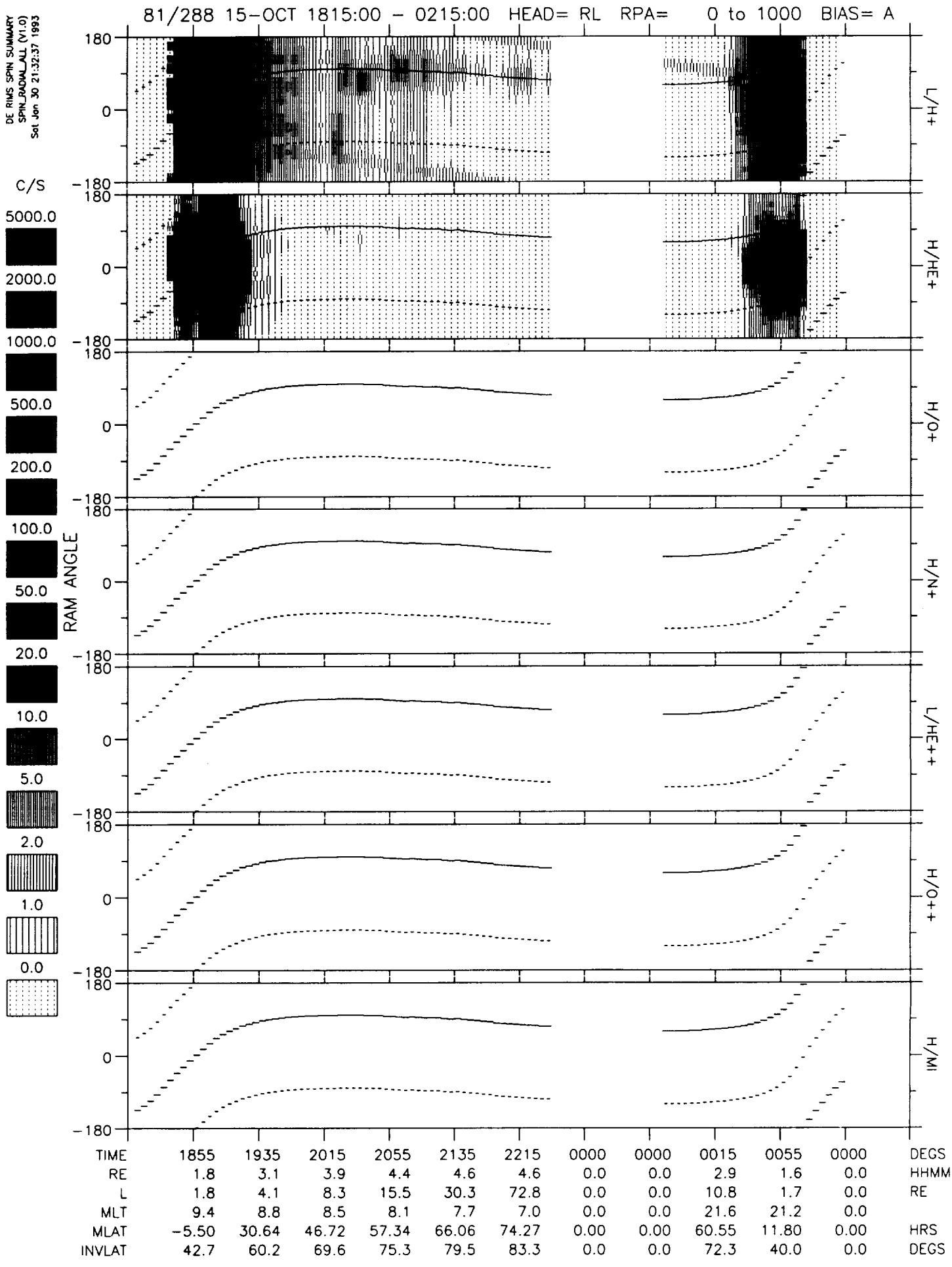

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 21:45:33 1993
81/287 14-OCT 0800:00 - 1600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0920 1000 1040 1120 0000 0000 1320 1400 1440 0000 DEGS
RE 0.0 3.1 3.9 4.4 4.6 0.0 0.0 3.8 2.9 1.6 0.0 HHMM
L 0.0 4.3 10.6 30.6 -0.0 0.0 0.0 15.6 4.9 1.5 0.0 RE
MLT 0.0 10.1 10.4 11.0 12.5 0.0 0.0 21.3 21.5 21.4 0.0
MLAT 0.00 34.91 54.54 69.08 80.23 0.00 0.00 59.27 38.68 -9.52 0.00 HRS
INVLAT 0.0 61.2 72.1 79.6 -0.0 0.0 0.0 75.3 63.2 36.4 0.0 DEGS

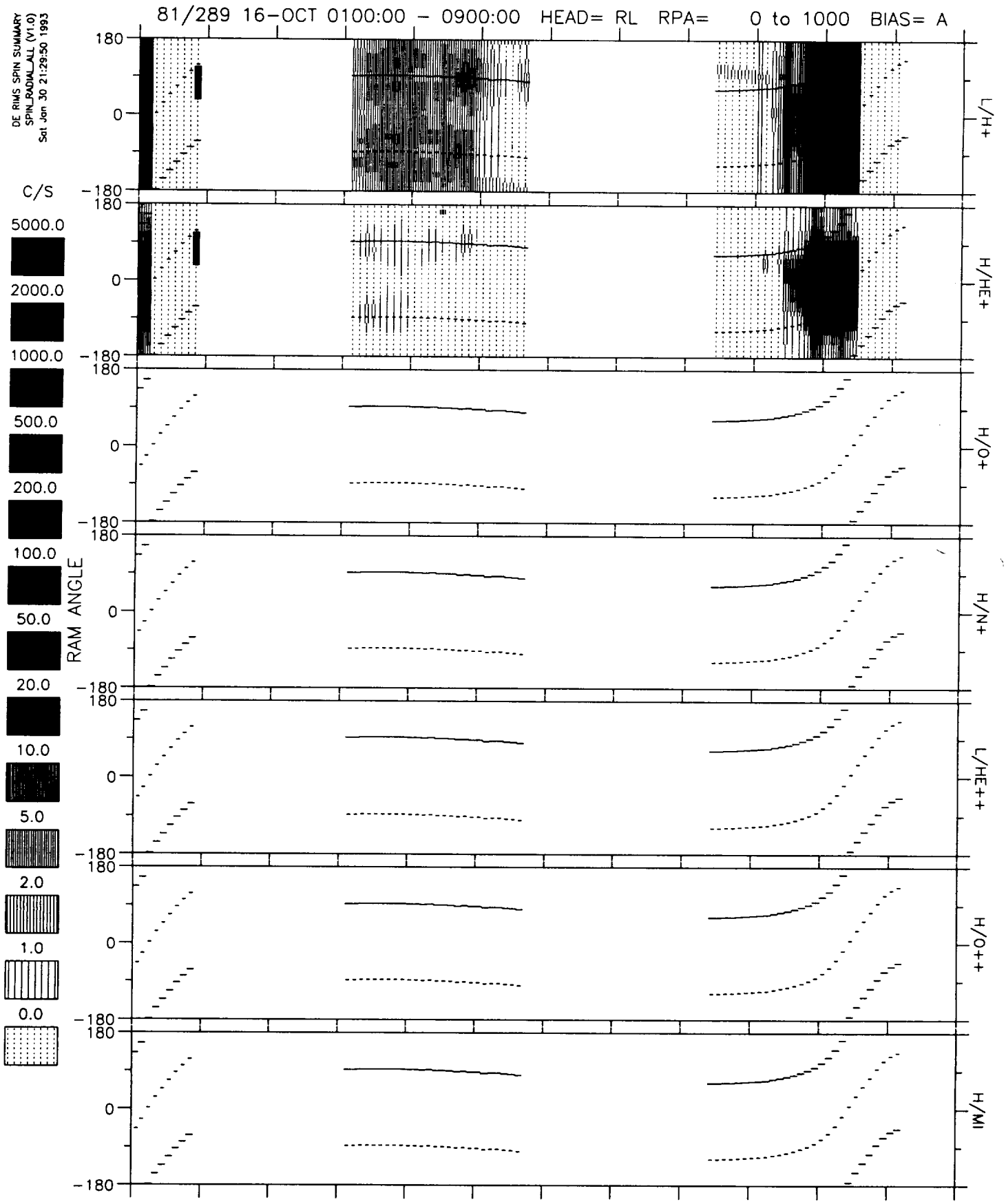

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 21:43:49 1993
81/287 14-OCT 1500:00 - 2300:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 1940 2020 2100 2140 2220 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 4.2 3.6 2.6 1.3 1.8 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 74.9 20.7 5.0 1.7 1.9 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.9 23.1 22.1 21.1 9.5
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 75.79 66.06 45.99 ***** ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 83.4 77.3 63.4 39.3 44.1 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 21:41:33 1993
81/287 14-OCT 2215:00 - 0615:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2255 2335 0015 0055 0135 0000 0000 0335 0415 0455 0535 DEGS
RE 2.9 3.8 4.3 4.6 4.6 0.0 0.0 3.0 1.8 1.3 2.6 HHMM
L 3.1 6.0 10.9 20.6 49.0 0.0 0.0 16.1 2.2 5.1 2.7 RE
MLT 9.1 8.9 9.0 9.0 9.2 0.0 0.0 20.6 21.2 8.4 9.6
MLAT 17.87 37.09 49.93 60.67 70.99 0.00 0.00 64.29 23.83 ***** 11.74 HRS
INVLAT 55.5 65.9 72.4 77.3 81.8 0.0 0.0 75.6 47.4 63.8 52.1 DEGS

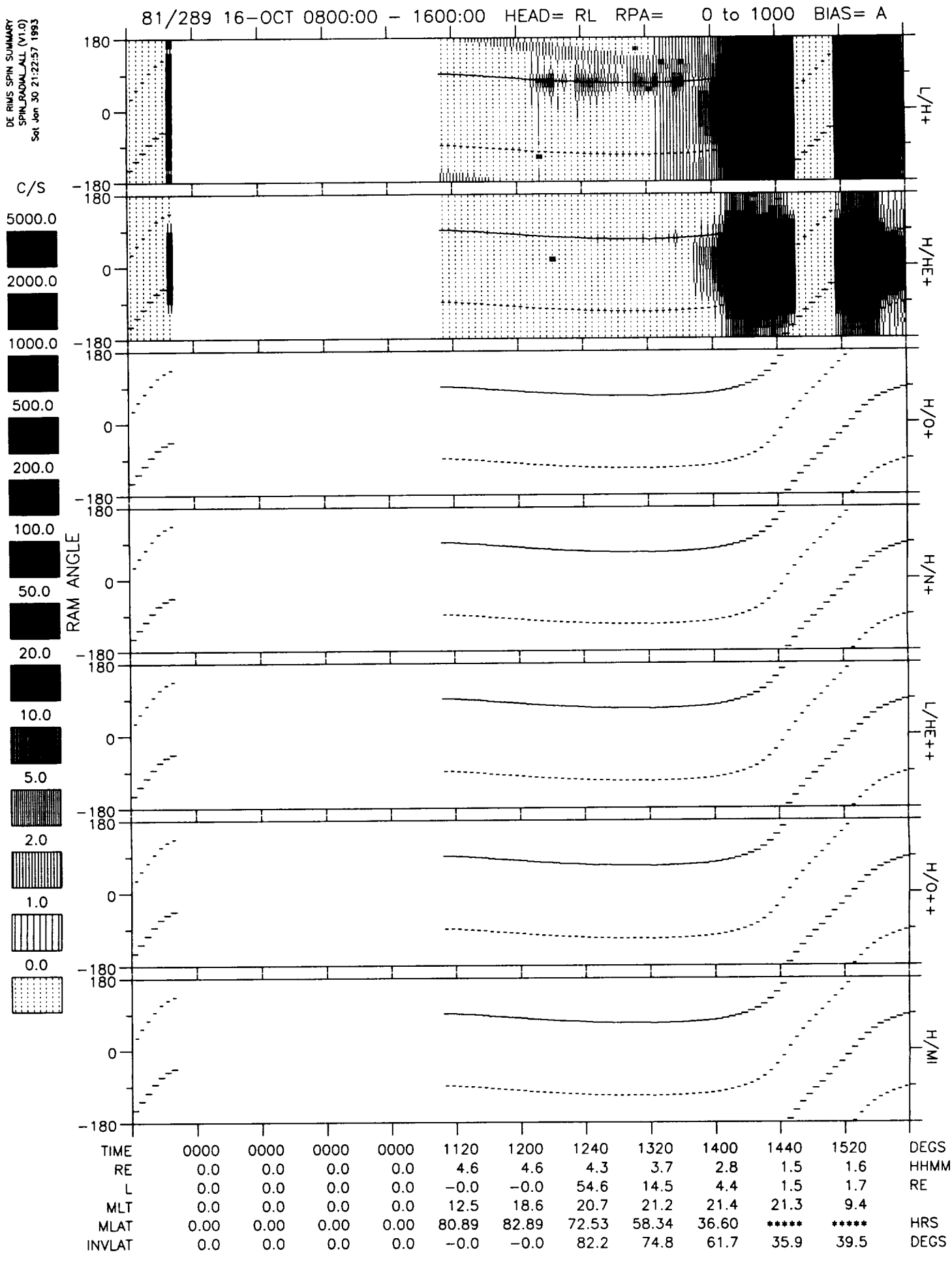

81/288 15-OCT 0430:00 – 1230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 21:39:26 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0510 0550 0630 0710 0750 0000 0000 0950 1030 1110 1150 DEGS
RE 1.7 3.0 3.8 4.4 4.6 0.0 0.0 3.8 2.9 1.7 1.3 HHMM
L 2.0 3.5 7.3 15.5 38.1 0.0 0.0 21.6 5.8 1.6 2.0 RE
MLT 9.2 9.8 10.2 10.8 11.8 0.0 0.0 20.1 20.9 21.4 9.2
MLAT ***** 23.20 43.82 58.21 69.74 0.00 0.00 64.13 43.91 -1.45 ***** HRS
INVLAT 44.7 57.8 68.3 75.3 80.7 0.0 0.0 77.6 65.4 38.2 44.5 DEGS

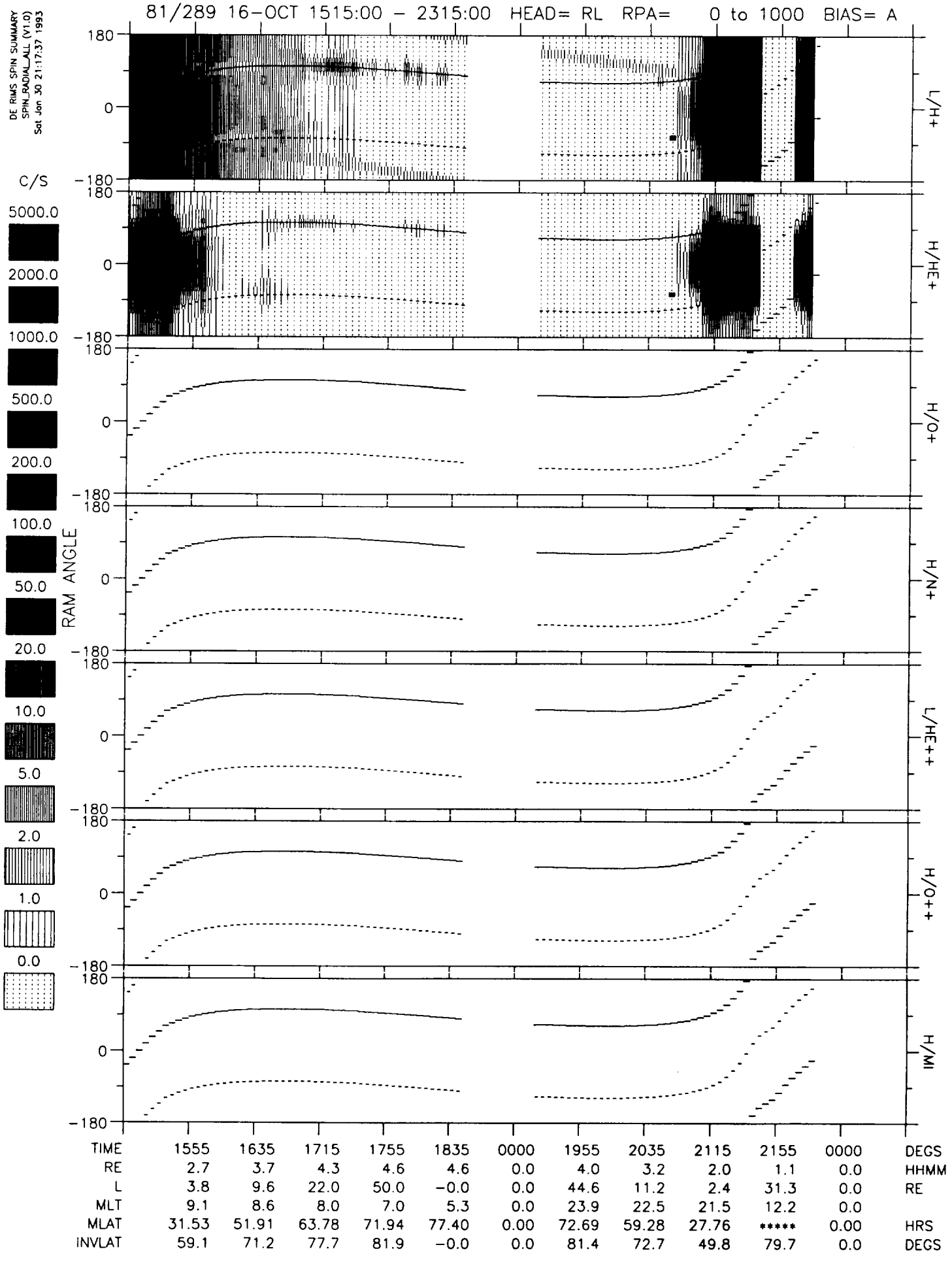

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 21:34:29 1993
81/288 15-OCT 1130:00 – 1930:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 1450 1530 1610 1650 1730 0000 1850 DEGS
RE 0.0 0.0 0.0 0.0 4.7 4.6 4.3 3.6 2.7 0.0 1.7 HHMM
L 0.0 0.0 0.0 0.0 -0.0 -0.0 51.5 14.8 4.5 0.0 1.8 RE
MLT 0.0 0.0 0.0 0.0 6.6 0.1 22.9 22.4 21.9 0.0 9.5
MLAT 0.00 0.00 0.00 0.00 85.04 82.19 72.29 59.48 38.80 0.00 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 -0.0 -0.0 82.0 75.0 61.8 0.0 41.5 DEGS

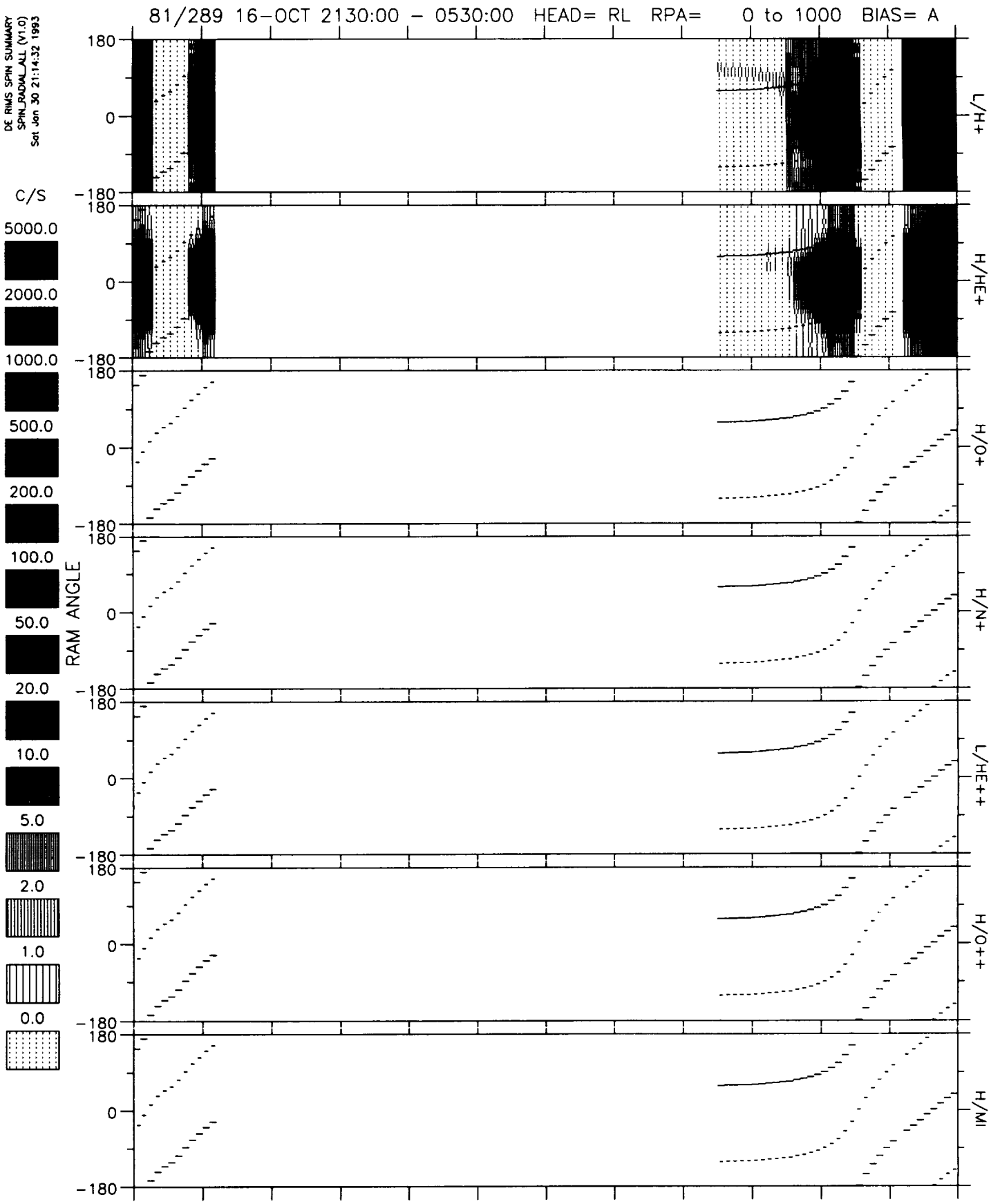

81/288 15-OCT 1815:00 - 0215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 21:32:37 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1855 1935 2015 2055 2135 2215 0000 0000 0015 0055 0000 DEGS
RE 1.8 3.1 3.9 4.4 4.6 4.6 0.0 0.0 2.9 1.6 0.0 HHMM
L 1.8 4.1 8.3 15.5 30.3 72.8 0.0 0.0 10.8 1.7 0.0 RE
MLT 9.4 8.8 8.5 8.1 7.7 7.0 0.0 0.0 21.6 21.2 0.0
MLAT -5.50 30.64 46.72 57.34 66.06 74.27 0.00 0.00 60.55 11.80 0.00 HRS
INVLAT 42.7 60.2 69.6 75.3 79.5 83.3 0.0 0.0 72.3 40.0 0.0 DEGS

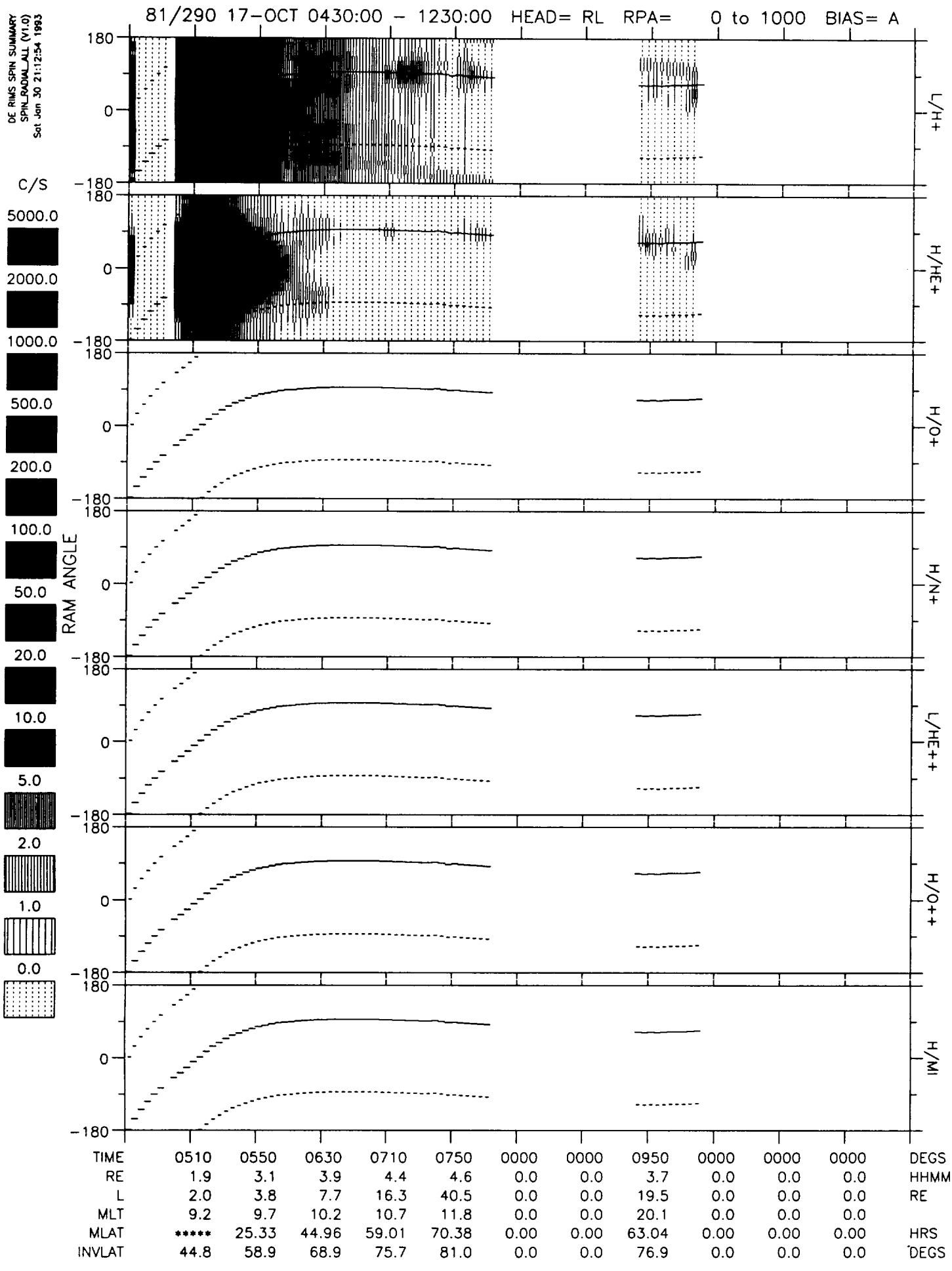


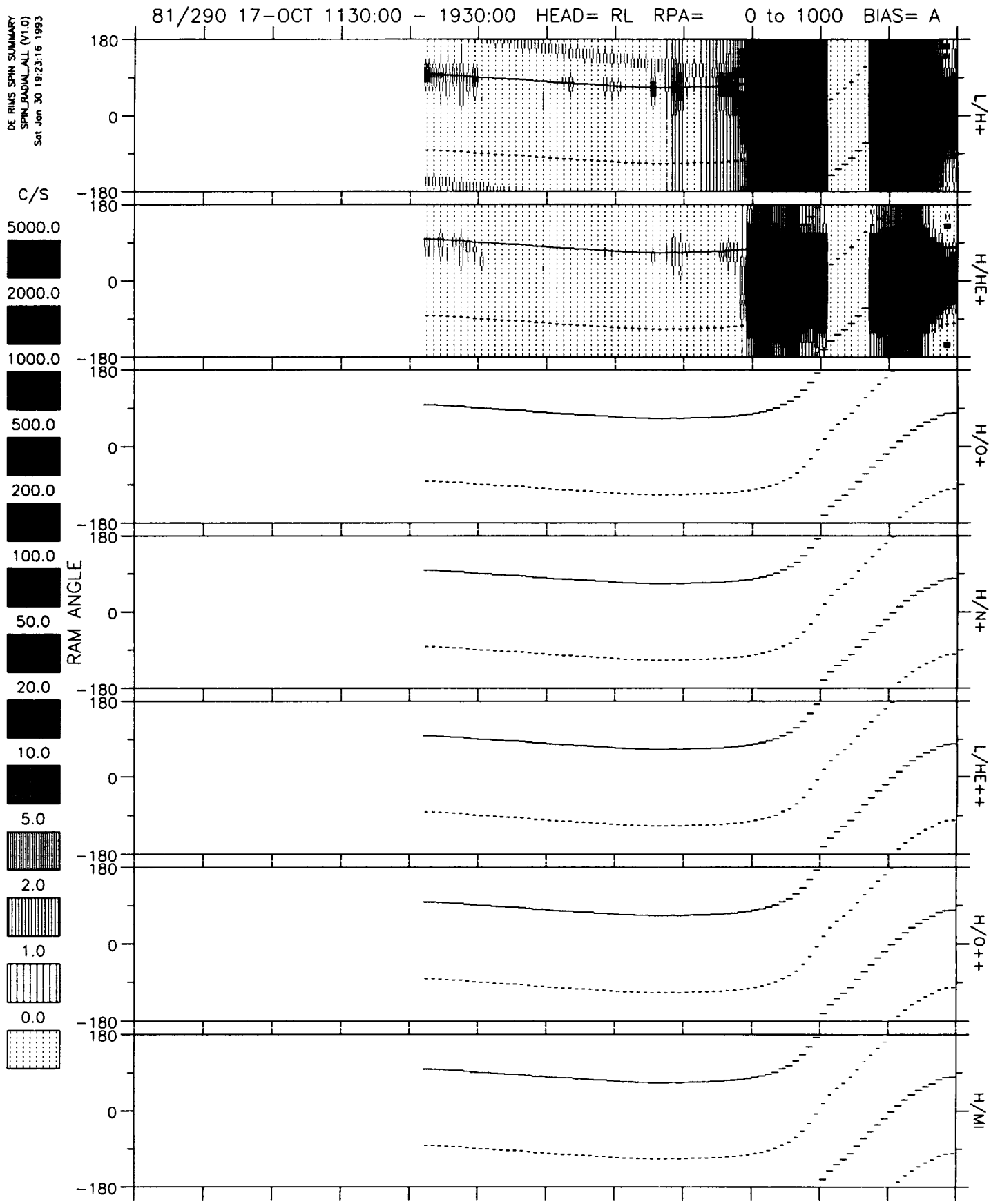
TIME	0000	0000	0000	0340	0420	0000	0000	0000	0700	0740	0820	DEGS
RE	0.0	0.0	0.0	4.4	4.6	0.0	0.0	0.0	3.0	1.8	1.3	HHMM
L	0.0	0.0	0.0	11.2	22.5	0.0	0.0	0.0	8.9	1.8	3.0	RE
MLT	0.0	0.0	0.0	9.8	10.3	0.0	0.0	0.0	20.4	21.3	8.7	
MLAT	0.00	0.00	0.00	50.50	62.22	0.00	0.00	0.00	54.51	12.46	*****	HRS
INVLAT	0.0	0.0	0.0	72.6	77.8	0.0	0.0	0.0	70.4	42.0	54.6	DEGS


81/289 16-OCT 0800:00 - 1600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 21:22:57 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 1120 1200 1240 1320 1400 1440 1520 DEGS
RE 0.0 0.0 0.0 0.0 4.6 4.6 4.3 3.7 2.8 1.5 1.6 HHMM
L 0.0 0.0 0.0 0.0 -0.0 -0.0 54.6 14.5 4.4 1.5 1.7 RE
MLT 0.0 0.0 0.0 0.0 12.5 18.6 20.7 21.2 21.4 21.3 9.4
MLAT 0.00 0.00 0.00 0.00 80.89 82.89 72.53 58.34 36.60 ***** ***** HRS
INVLAT 0.0 0.0 0.0 0.0 -0.0 -0.0 82.2 74.8 61.7 35.9 39.5 DEGS

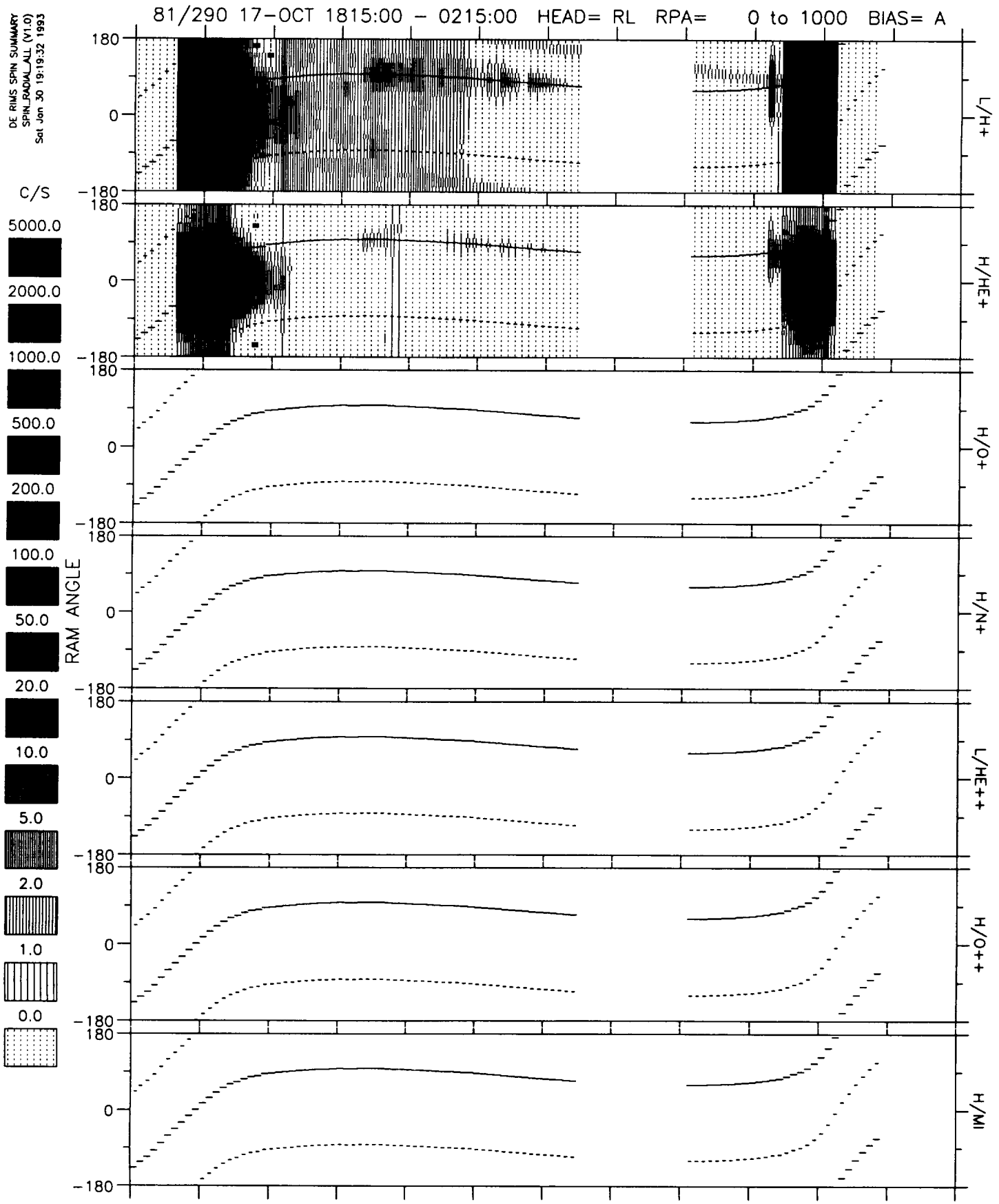

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 21:17:37 1993
81/289 16-OCT 1515:00 - 2315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1555 1635 1715 1755 1835 0000 1955 2035 2115 2155 0000 DEGS
RE 2.7 3.7 4.3 4.6 4.6 0.0 4.0 3.2 2.0 1.1 0.0 HHMM
L 3.8 9.6 22.0 50.0 -0.0 0.0 44.6 11.2 2.4 31.3 0.0 RE
MLT 9.1 8.6 8.0 7.0 5.3 0.0 23.9 22.5 21.5 12.2 0.0
MLAT 31.53 51.91 63.78 71.94 77.40 0.00 72.69 59.28 27.76 ***** 0.00 HRS
INVLAT 59.1 71.2 77.7 81.9 -0.0 0.0 81.4 72.7 49.8 79.7 0.0 DEGS


81/289 16-OCT 2130:00 - 0530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 21:14:32 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2210 0000 0000 0000 0000 0000 0000 0000 0330 0410 0450 DEGS
RE 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.1 1.9 1.2 HHMM
L 2.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 17.7 2.3 6.5 RE
MLT 9.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 20.4 21.1 8.1
MLAT ***** 0.00 0.00 0.00 0.00 0.00 0.00 0.00 65.47 26.05 ***** HRS
INVLAT 47.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 76.3 48.8 66.8 DEGS

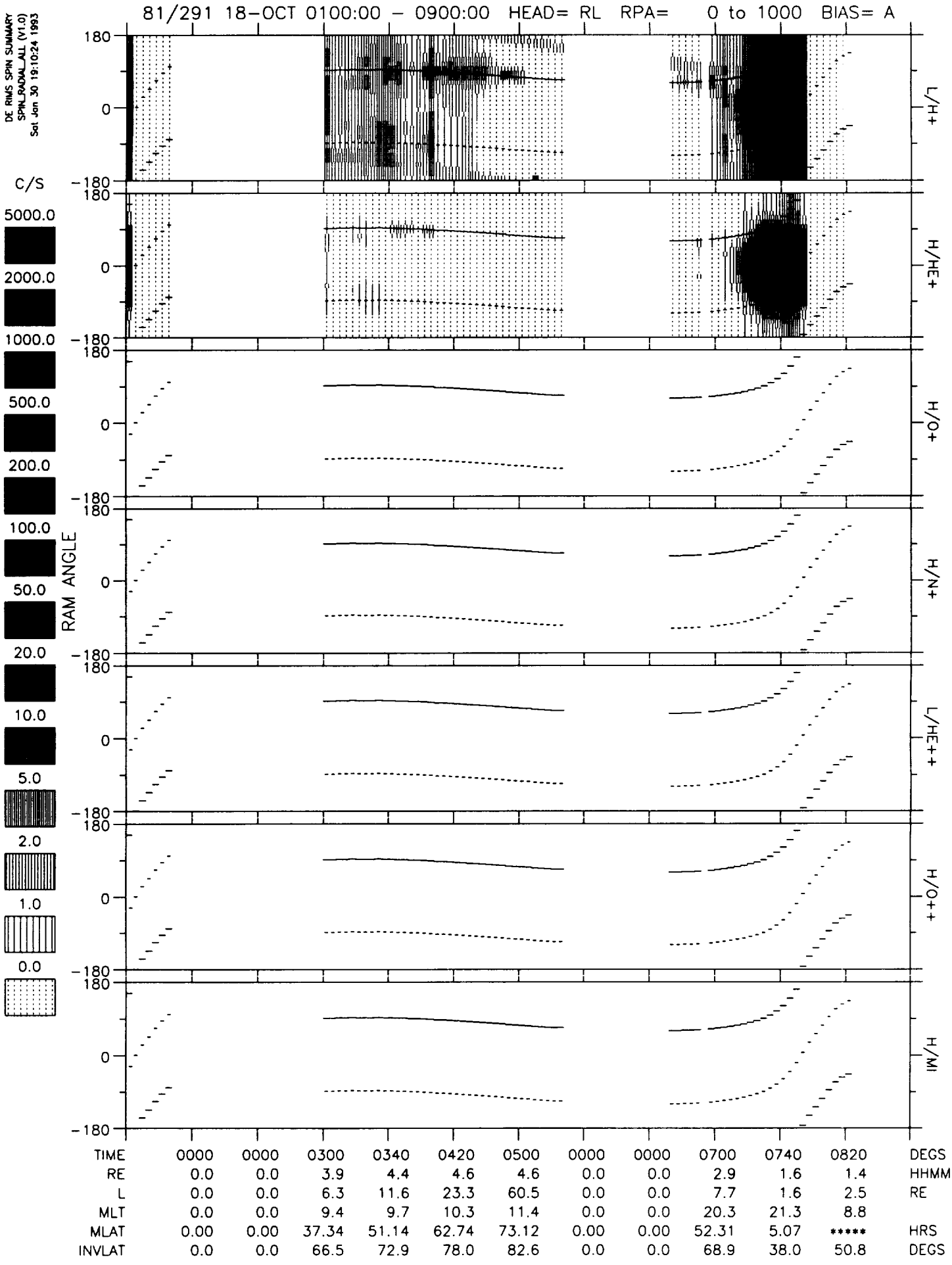

81/290 17-OCT 0430:00 - 1230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 21:12:54 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0510 0550 0630 0710 0750 0000 0000 0950 0000 0000 0000 DEGS
RE 1.9 3.1 3.9 4.4 4.6 0.0 0.0 3.7 0.0 0.0 0.0 HHMM
L 2.0 3.8 7.7 16.3 40.5 0.0 0.0 19.5 0.0 0.0 0.0 RE
MLT 9.2 9.7 10.2 10.7 11.8 0.0 0.0 20.1 0.0 0.0 0.0
MLAT ***** 25.33 44.96 59.01 70.38 0.00 0.00 63.04 0.00 0.00 0.00 HRS
INVLAT 44.8 58.9 68.9 75.7 81.0 0.0 0.0 76.9 0.0 0.0 0.0 DEGS

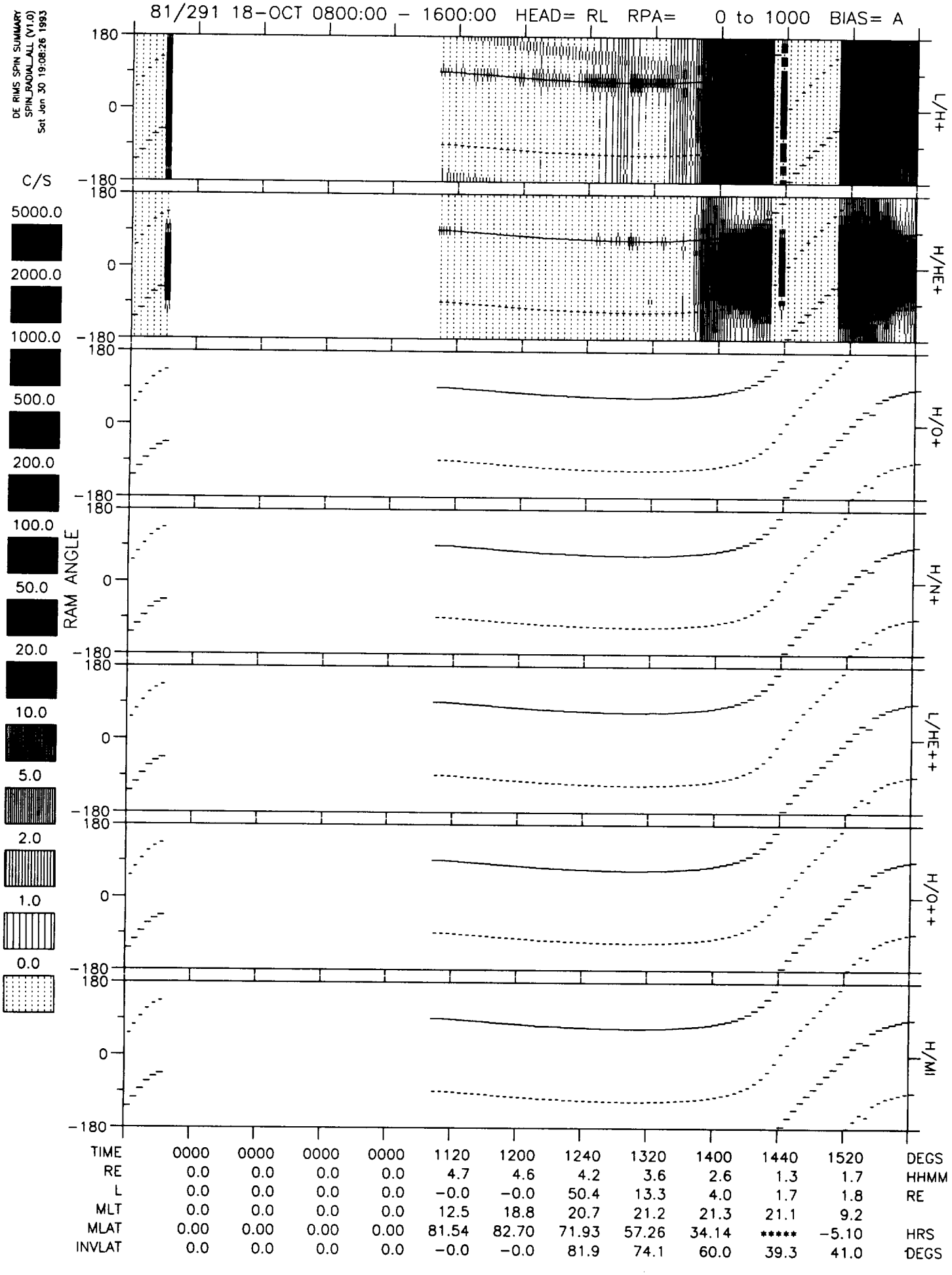


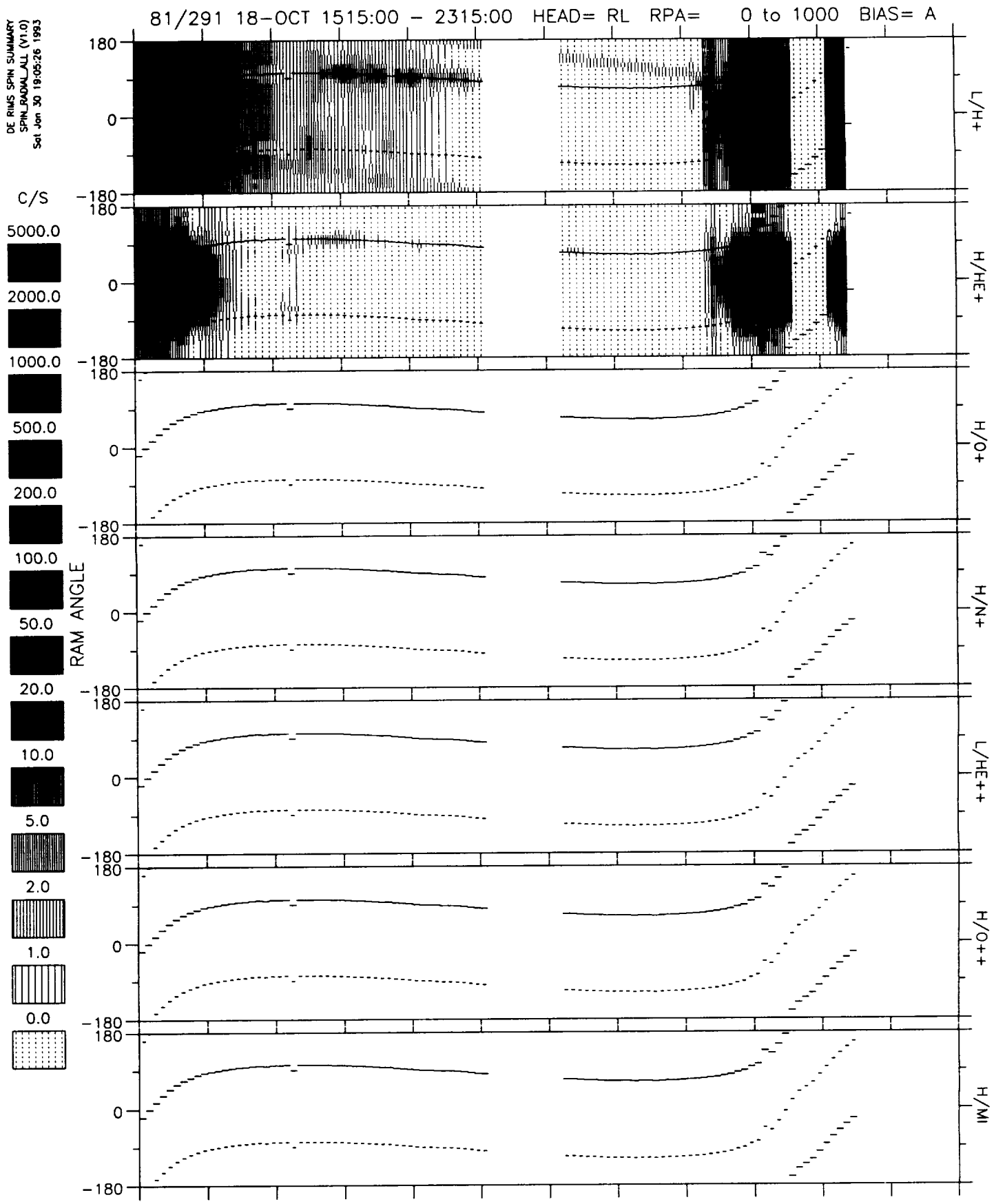
TIME	0000	0000	0000	0000	1450	1530	1610	1650	1730	1810	1850	DEGS
RE	0.0	0.0	0.0	0.0	4.7	4.6	4.2	3.6	2.6	1.3	1.8	HHMM
L	0.0	0.0	0.0	0.0	100.0	100.0	48.3	13.8	4.0	1.9	1.8	RE
MLT	0.0	0.0	0.0	0.0	6.1	0.1	22.8	22.2	21.8	20.8	9.3	
MLAT	0.00	0.00	0.00	0.00	84.97	81.78	71.84	58.66	36.53	*****	-7.89	HRS
INVLAT	0.0	0.0	0.0	0.0	87.7	86.7	81.7	74.4	60.0	43.7	42.5	DEGS

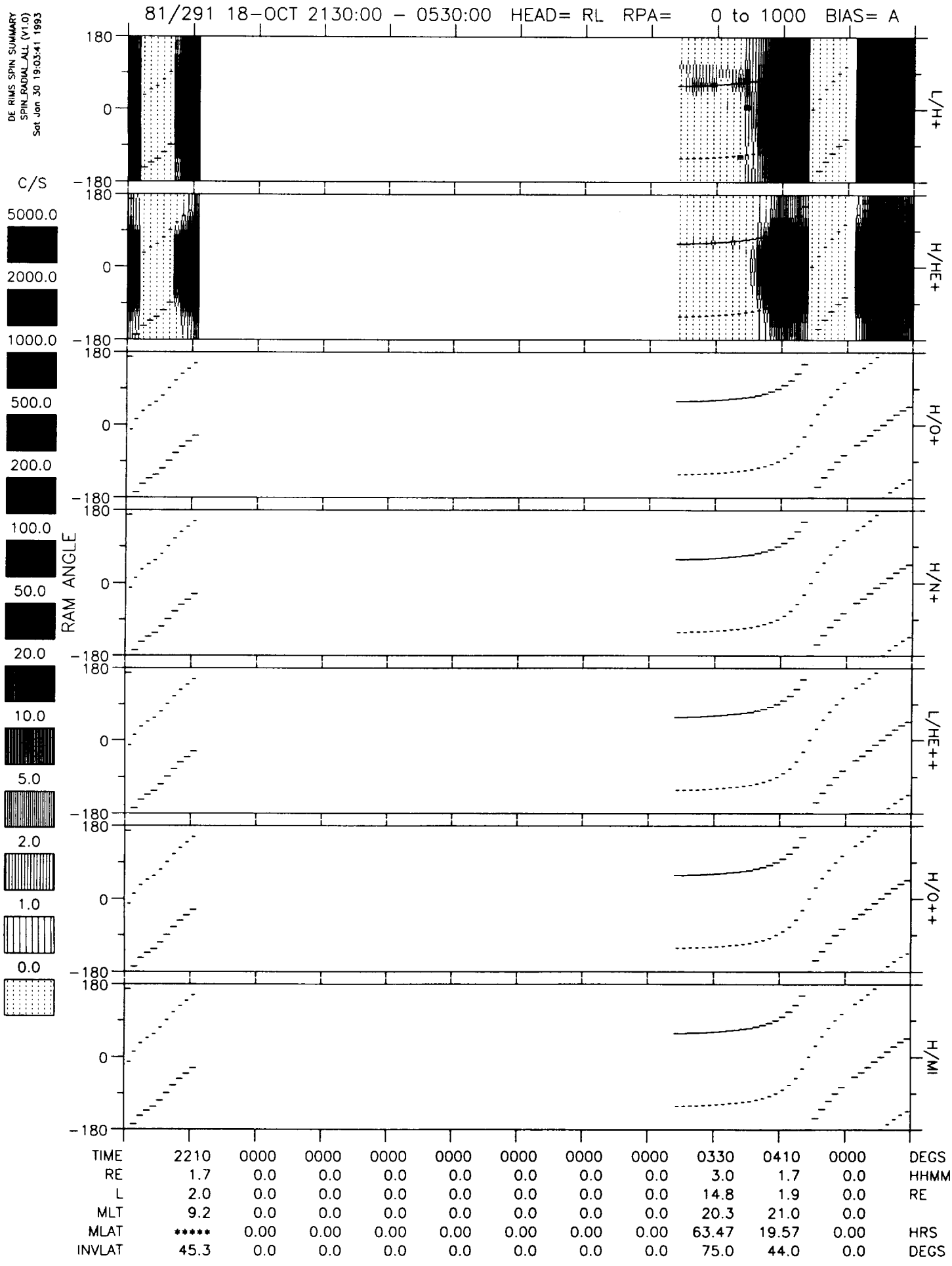


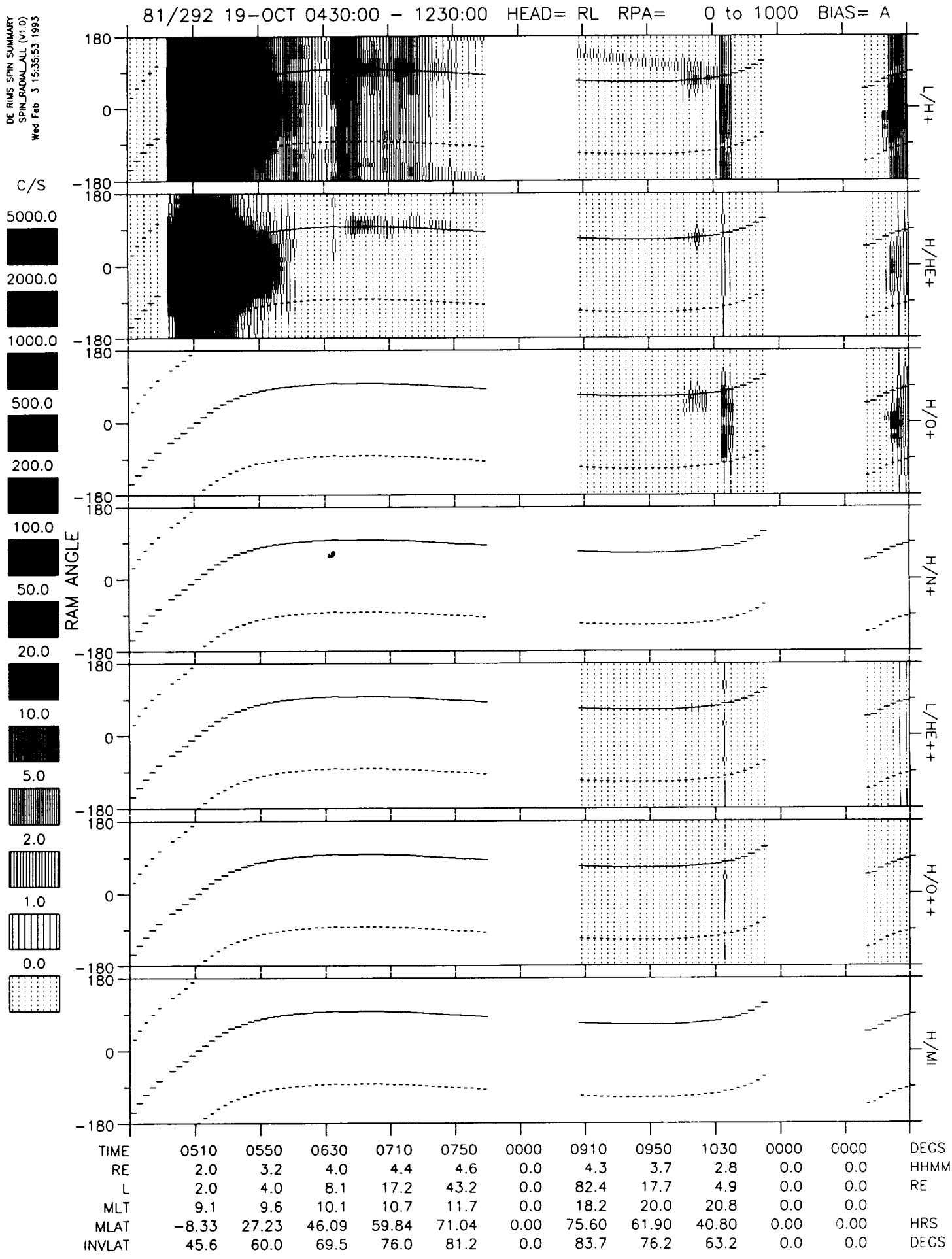
TIME	1855	1935	2015	2055	2135	2215	0000	0000	0015	0055	0000	DEGS
RE	2.0	3.2	4.0	4.4	4.6	4.6	0.0	0.0	2.7	1.4	0.0	HHMM
L	2.0	4.3	8.6	15.8	30.7	74.7	0.0	0.0	9.3	1.5	0.0	RE
MLT	9.2	8.7	8.3	8.0	7.6	6.9	0.0	0.0	21.4	21.1	0.0	
MLAT	-0.52	31.87	47.13	57.48	66.16	74.48	0.00	0.00	58.49	2.35	0.00	HRS
INVLAT	44.4	61.2	70.0	75.4	79.6	83.3	0.0	0.0	70.9	35.3	0.0	DEGS

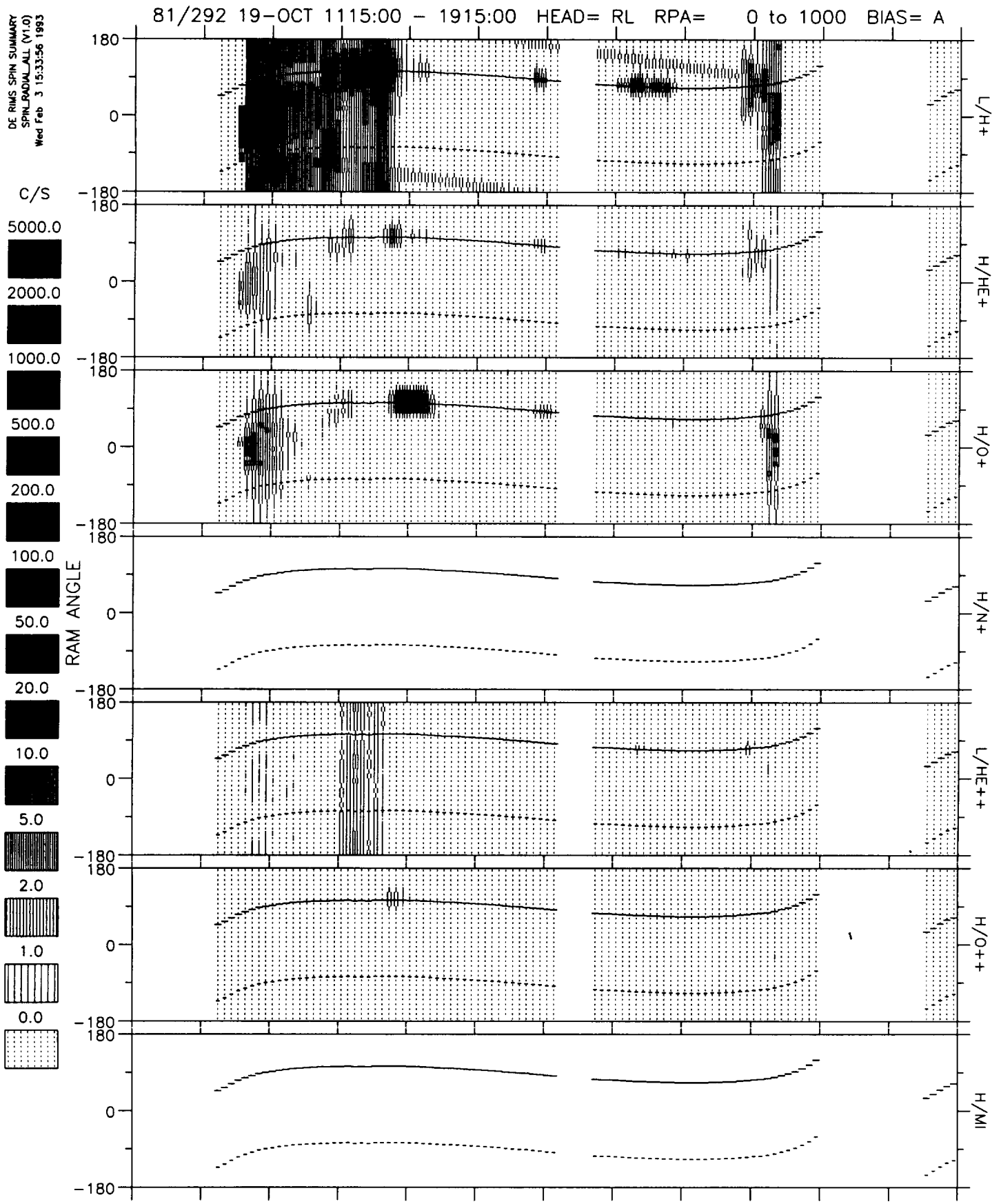

81/291 18-OCT 0100:00 - 0900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 19:10:24 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0300 0340 0420 0500 0000 0000 0700 0740 0820 DEGS
RE 0.0 0.0 3.9 4.4 4.6 4.6 0.0 0.0 2.9 1.6 1.4 HHMM
L 0.0 0.0 6.3 11.6 23.3 60.5 0.0 0.0 7.7 1.6 2.5 RE
MLT 0.0 0.0 9.4 9.7 10.3 11.4 0.0 0.0 20.3 21.3 8.8
MLAT 0.00 0.00 37.34 51.14 62.74 73.12 0.00 0.00 52.31 5.07 ***** HRS
INVLAT 0.0 0.0 66.5 72.9 78.0 82.6 0.0 0.0 68.9 38.0 50.8 DEGS


81/291 18-OCT 0800:00 - 1600:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 19:08:26 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 1120 1200 1240 1320 1400 1440 1520 DEGS
RE 0.0 0.0 0.0 0.0 4.7 4.6 4.2 3.6 2.6 1.3 1.7 HHMM
L 0.0 0.0 0.0 0.0 -0.0 -0.0 50.4 13.3 4.0 1.7 1.8 RE
MLT 0.0 0.0 0.0 0.0 12.5 18.8 20.7 21.2 21.3 21.1 9.2
MLAT 0.00 0.00 0.00 0.00 81.54 82.70 71.93 57.26 34.14 ***** -5.10 HRS
INVLAT 0.0 0.0 0.0 0.0 -0.0 -0.0 81.9 74.1 60.0 39.3 41.0 DEGS

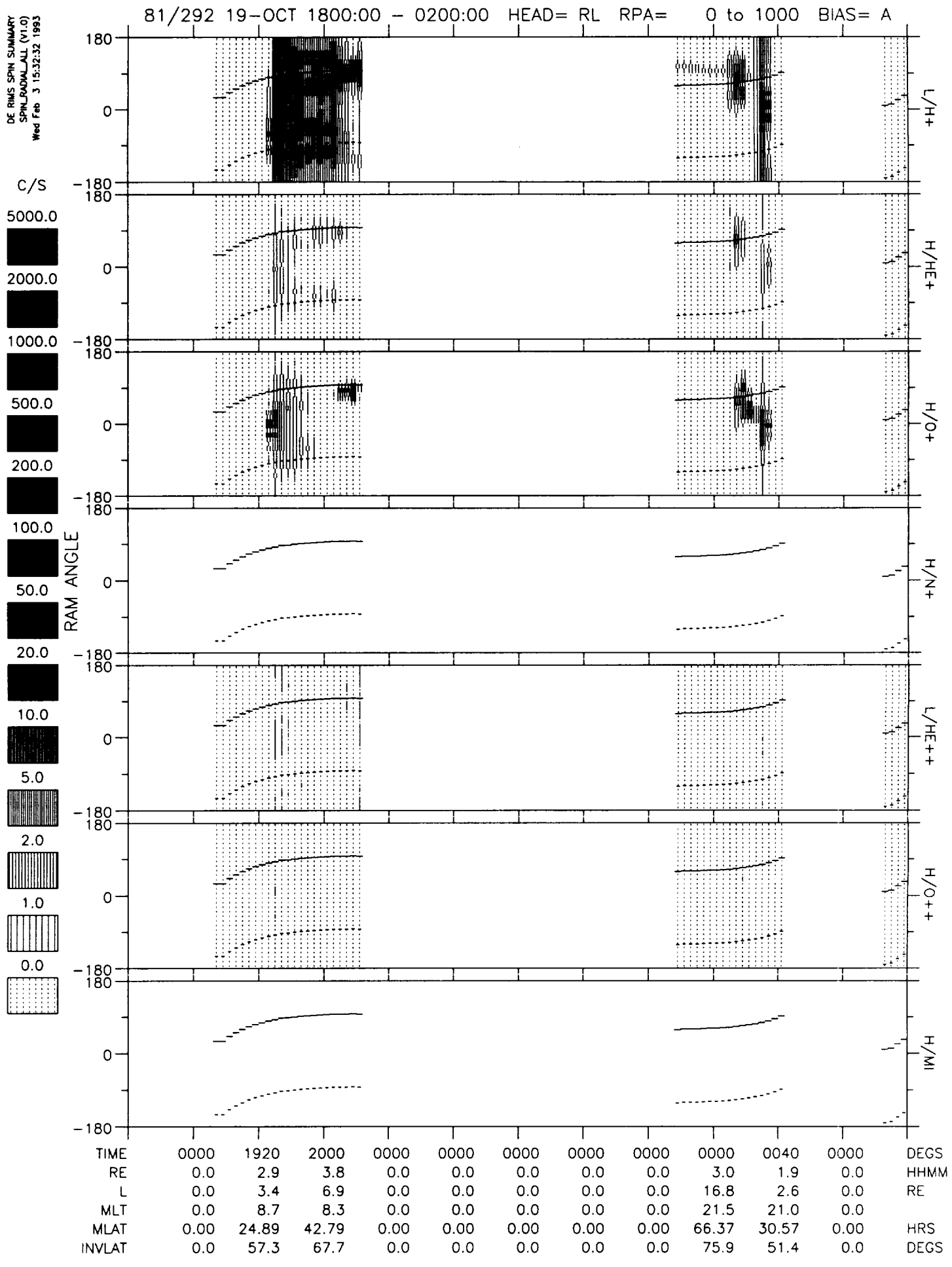

81/291 18-OCT 1515:00 - 2315:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 19:05:26 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1555 1635 1715 1755 1835 0000 1955 2035 2115 2155 0000 DEGS
RE 2.8 3.8 4.3 4.6 4.6 0.0 3.9 3.1 1.9 1.2 0.0 HHMM
L 4.1 10.1 22.5 50.0 -0.0 0.0 42.1 10.1 2.1 8.4 0.0 RE
MLT 8.9 8.5 7.8 6.9 5.3 0.0 23.7 22.3 21.3 10.3 0.0
MLAT 33.48 52.54 63.91 71.89 77.11 0.00 72.41 58.12 22.96 ***** 0.00 HRS
INVLAT 60.4 71.7 77.8 81.9 -0.0 0.0 81.1 71.7 46.2 69.7 0.0 DEGS

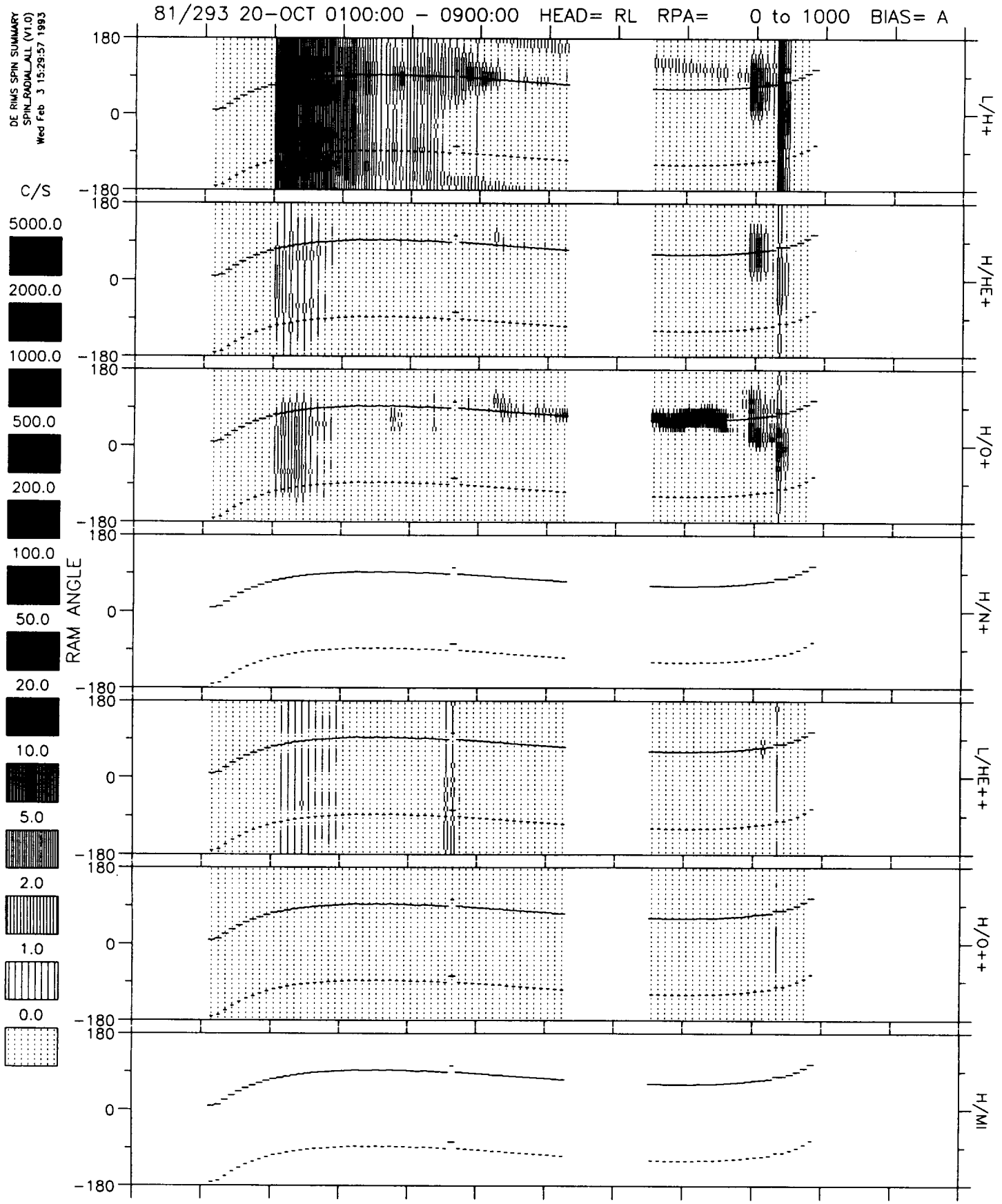

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Jan 30 19:03:41 1993
81/291 18-OCT 2130:00 - 0530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 2210 0000 0000 0000 0000 0000 0000 0000 0330 0410 0000 DEGS
RE 1.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.0 1.7 0.0 HHMM
L 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 14.8 1.9 0.0 RE
MLT 9.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 20.3 21.0 0.0
MLAT ***** 0.00 0.00 0.00 0.00 0.00 0.00 0.00 63.47 19.57 0.00 HRS
INVLAT 45.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 75.0 44.0 0.0 DEGS


81/292 19-OCT 0430:00 - 1230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 15:35:53 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0510 0550 0630 0710 0750 0000 0910 0950 1030 0000 0000 DEGS
RE 2.0 3.2 4.0 4.4 4.6 0.0 4.3 3.7 2.8 0.0 0.0 HHMM
L 2.0 4.0 8.1 17.2 43.2 0.0 82.4 17.7 4.9 0.0 0.0 RE
MLT 9.1 9.6 10.1 10.7 11.7 0.0 18.2 20.0 20.8 0.0 0.0
MLAT -8.33 27.23 46.09 59.84 71.04 0.00 75.60 61.90 40.80 0.00 0.00 HRS
INVLAT 45.6 60.0 69.5 76.0 81.2 0.0 83.7 76.2 63.2 0.0 0.0 DEGS

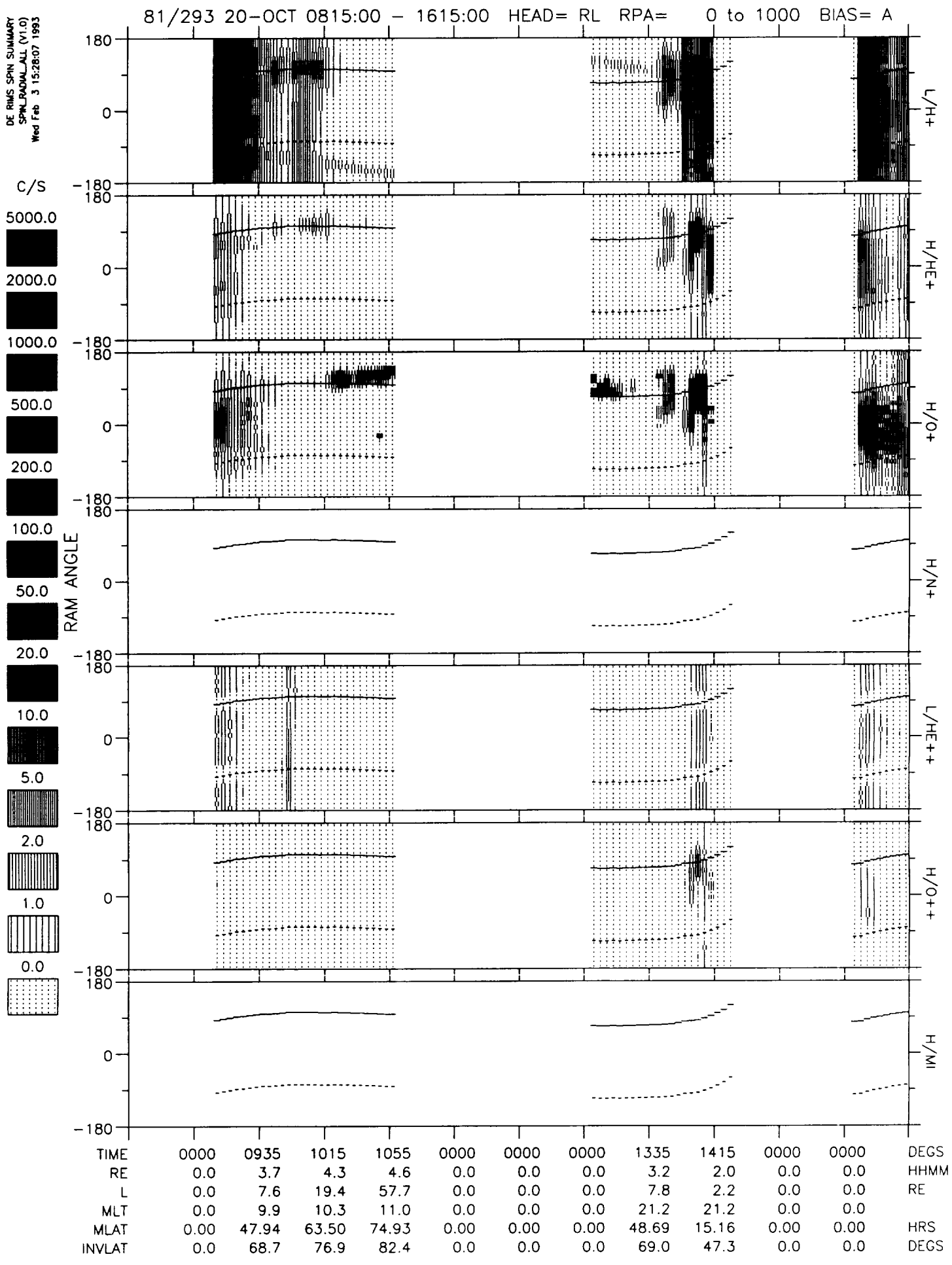


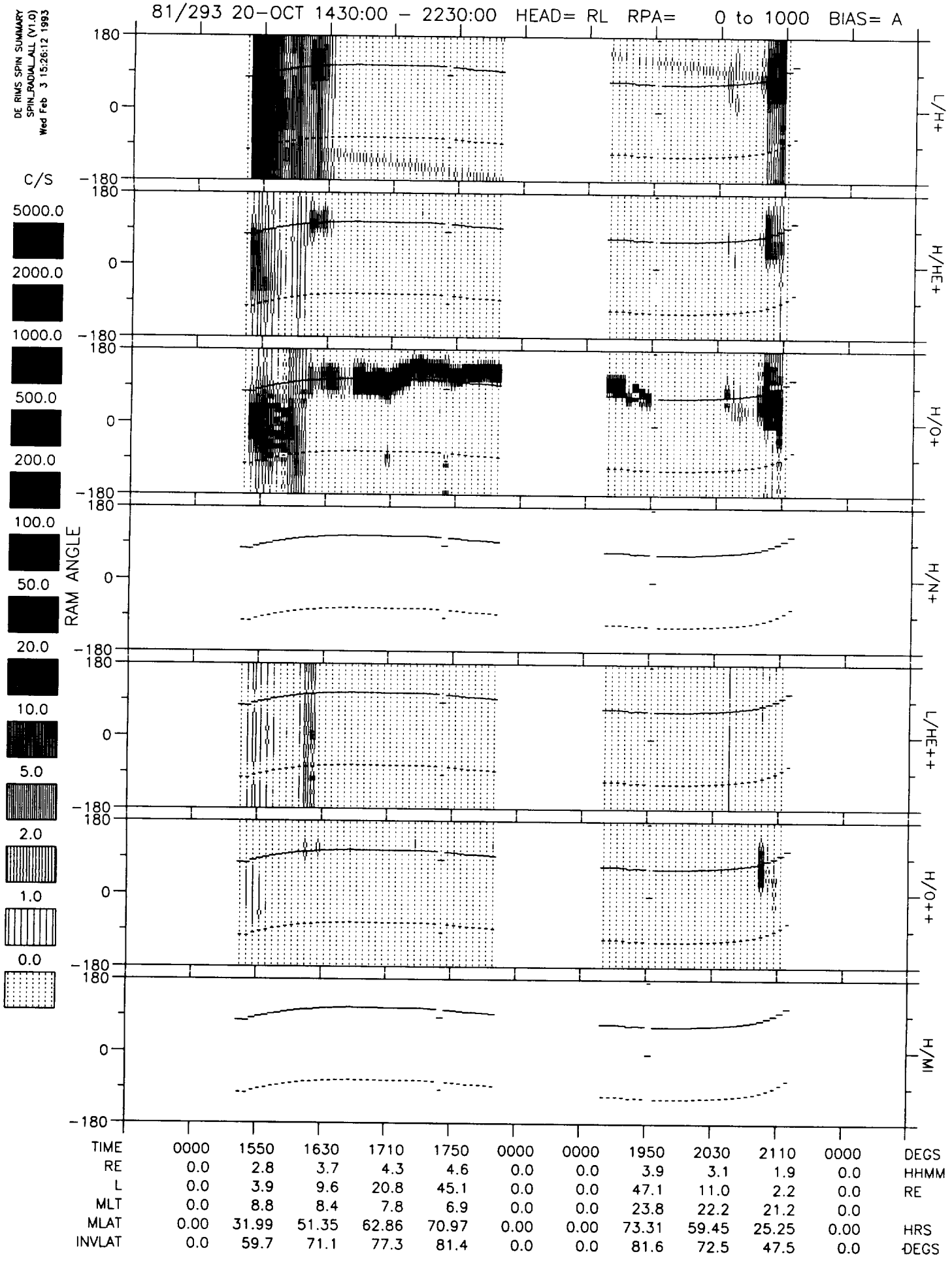
TIME	0000	1235	1315	1355	1435	1515	1555	1635	1715	0000	0000	DEGS
RE	0.0	3.0	3.9	4.4	4.6	4.6	4.3	3.8	2.9	0.0	0.0	HHMM
L	0.0	5.2	14.4	44.9	100.0	100.0	79.0	20.1	5.9	0.0	0.0	RE
MLT	0.0	9.3	9.2	8.9	7.4	1.3	23.0	22.3	21.8	0.0	0.0	
MLAT	0.00	40.16	59.35	72.37	82.31	84.22	75.42	63.50	45.07	0.00	0.00	HRS
INVLAT	0.0	63.9	74.7	81.4	86.3	87.9	83.5	77.1	65.6	0.0	0.0	DEGS

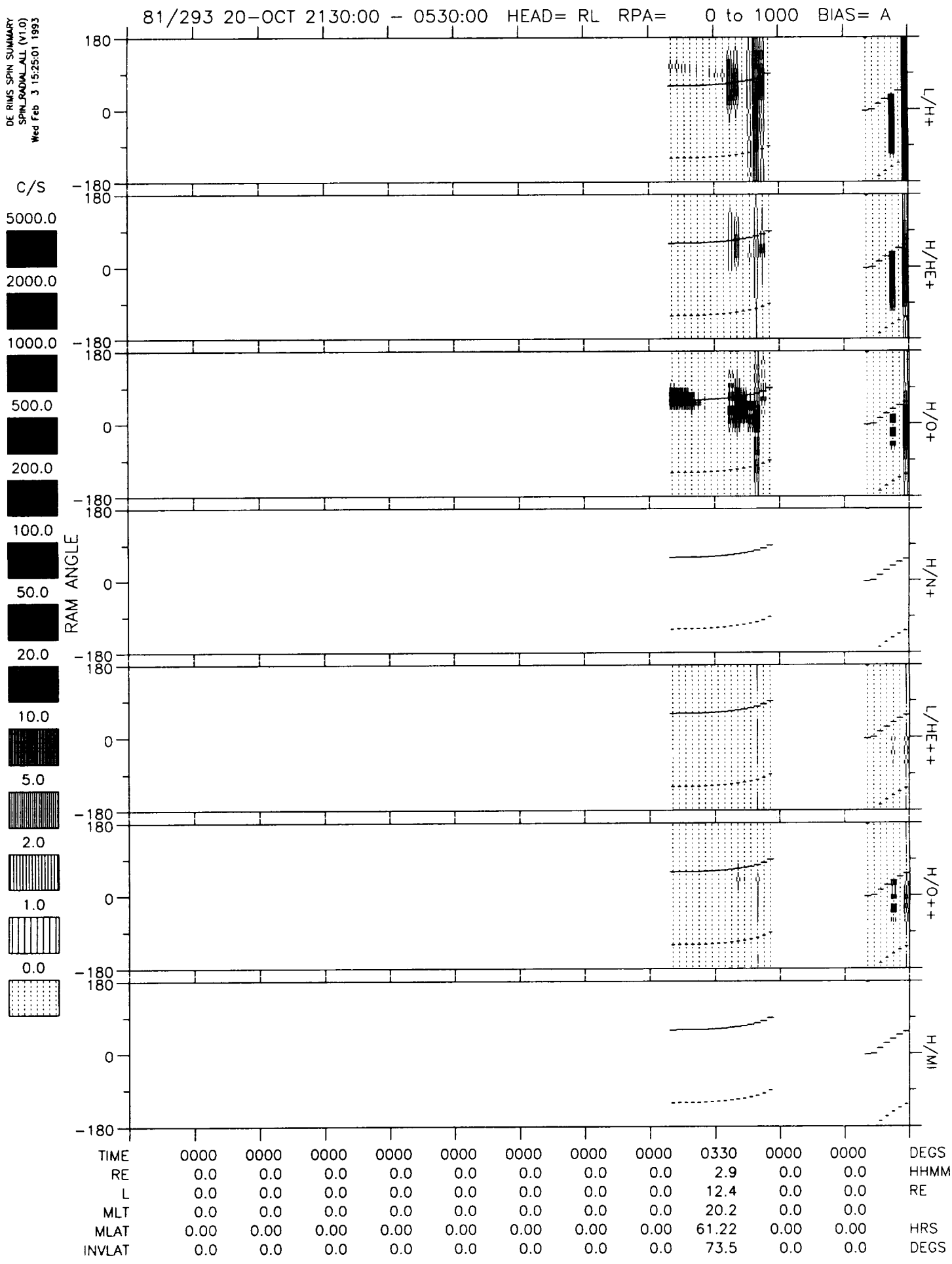

81/292 19-OCT 1800:00 - 0200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 15:32:32 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1920 2000 0000 0000 0000 0000 0000 0000 0040 0000 DEGS
RE 0.0 2.9 3.8 0.0 0.0 0.0 0.0 0.0 3.0 1.9 0.0 HHMM
L 0.0 3.4 6.9 0.0 0.0 0.0 0.0 0.0 16.8 2.6 0.0 RE
MLT 0.0 8.7 8.3 0.0 0.0 0.0 0.0 0.0 21.5 21.0 0.0
MLAT 0.00 24.89 42.79 0.00 0.00 0.00 0.00 0.00 66.37 30.57 0.00 HRS
INVLAT 0.0 57.3 67.7 0.0 0.0 0.0 0.0 0.0 75.9 51.4 0.0 DEGS

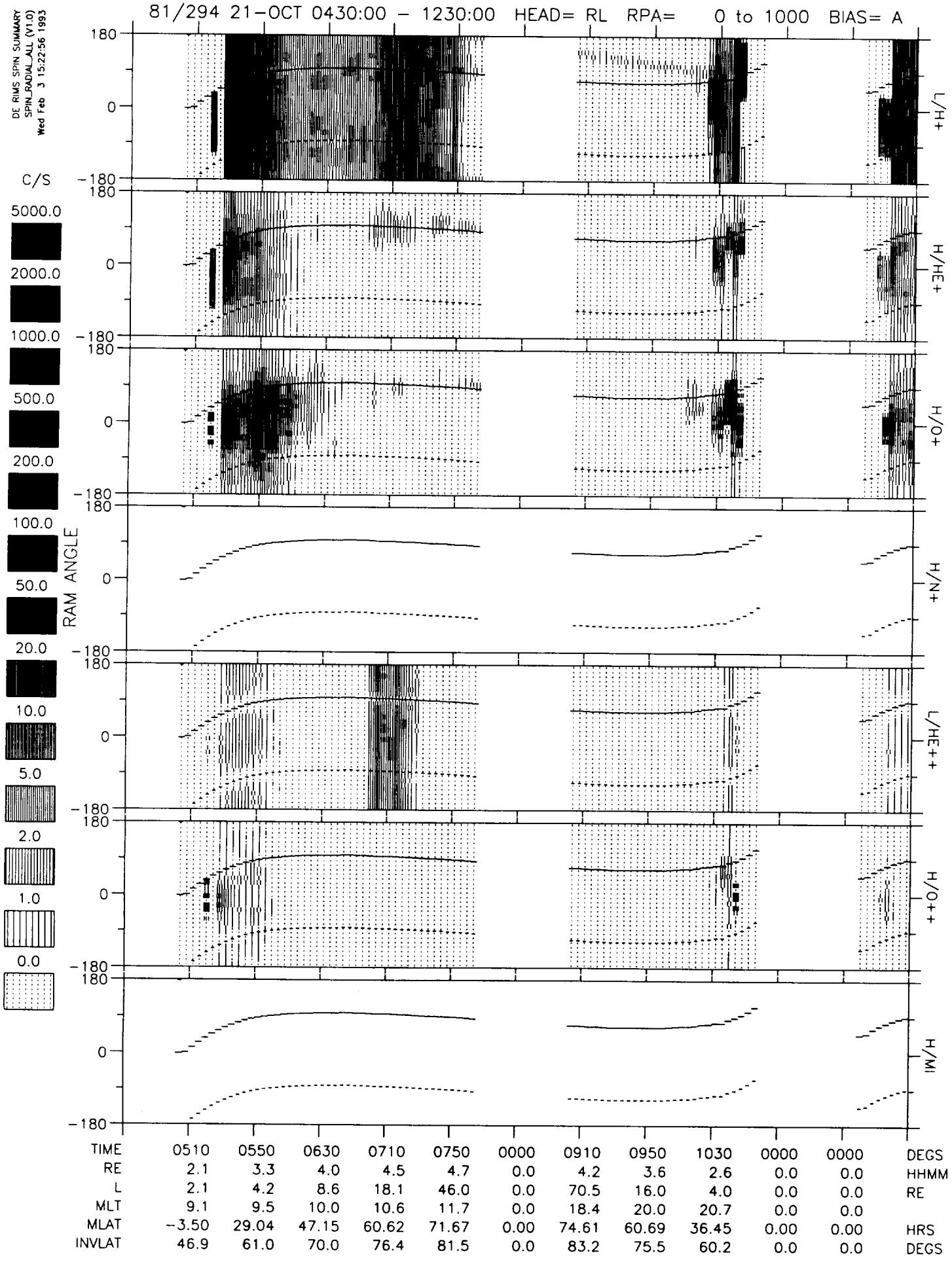


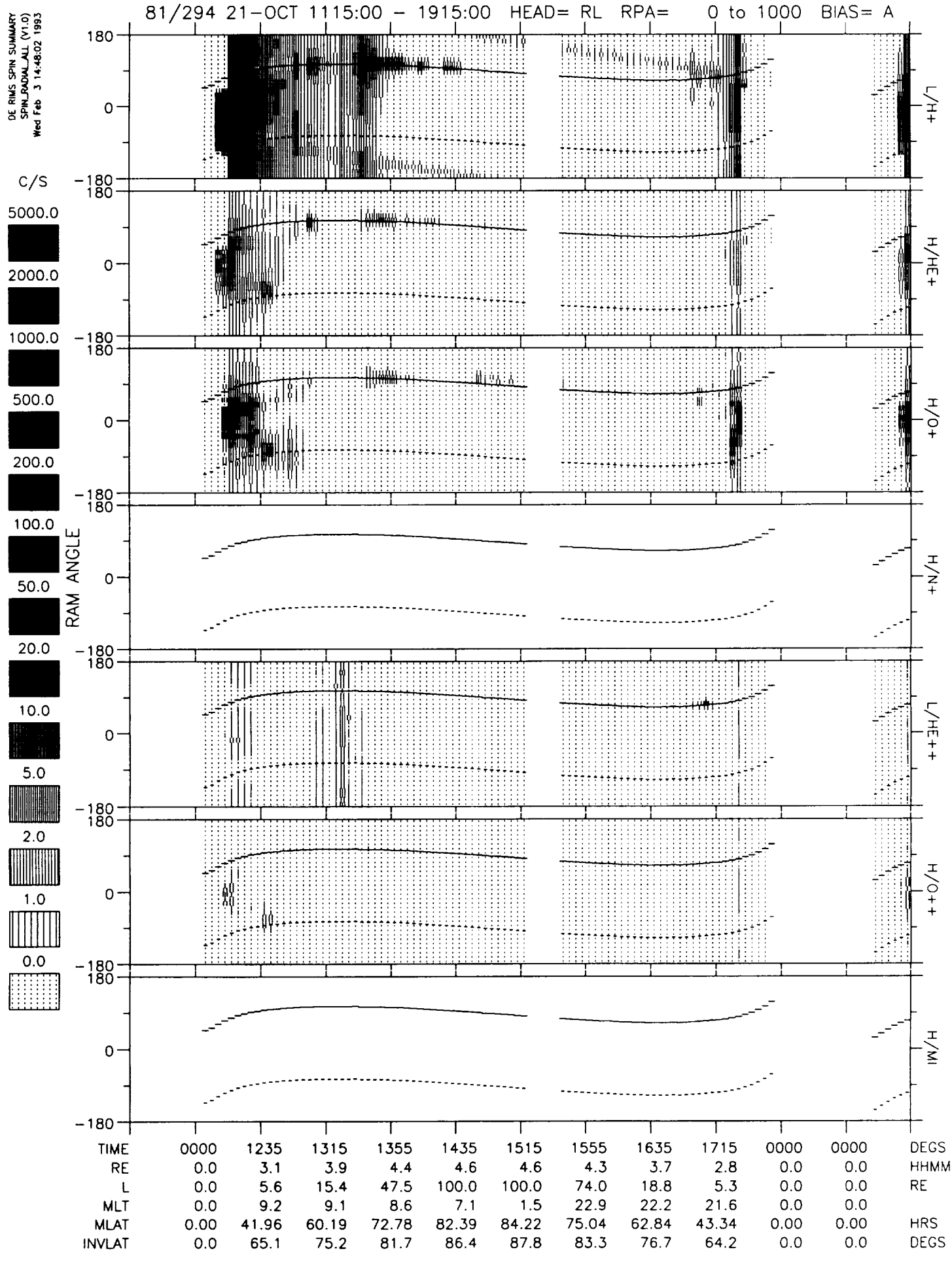
TIME	0000	0220	0300	0340	0420	0500	0000	0620	0700	0000	0000	DEGS
RE	0.0	3.1	3.9	4.4	4.6	4.6	0.0	3.7	2.8	0.0	0.0	HHMM
L	0.0	3.5	6.6	12.0	24.2	63.8	0.0	38.0	6.7	0.0	0.0	RE
MLT	0.0	9.1	9.3	9.6	10.2	11.5	0.0	18.9	20.3	0.0	0.0	
MLAT	0.00	19.64	38.30	51.80	63.29	73.59	0.00	71.16	49.89	0.00	0.00	HRS
INVLAT	0.0	57.9	67.0	73.2	78.3	82.8	0.0	80.7	67.2	0.0	0.0	DEGS

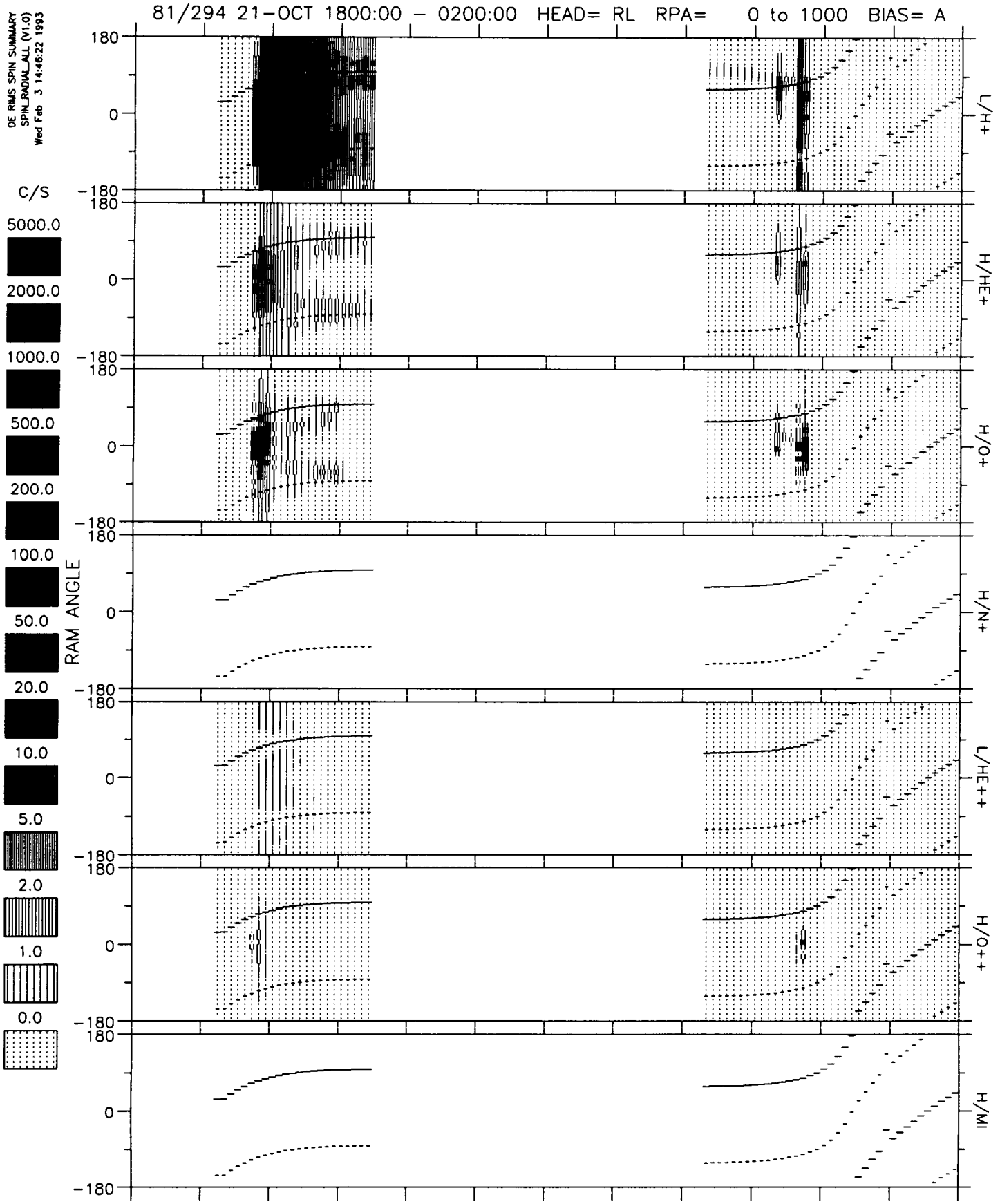

81/293 20-OCT 0815:00 – 1615:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 15:28:07 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0935 1015 1055 0000 0000 0000 1335 1415 0000 0000 DEGS
RE 0.0 3.7 4.3 4.6 0.0 0.0 0.0 3.2 2.0 0.0 0.0 HHMM
L 0.0 7.6 19.4 57.7 0.0 0.0 0.0 7.8 2.2 0.0 0.0 RE
MLT 0.0 9.9 10.3 11.0 0.0 0.0 0.0 21.2 21.2 0.0 0.0
MLAT 0.00 47.94 63.50 74.93 0.00 0.00 0.00 48.69 15.16 0.00 0.00 HRS
INVLAT 0.0 68.7 76.9 82.4 0.0 0.0 0.0 69.0 47.3 0.0 0.0 DEGS

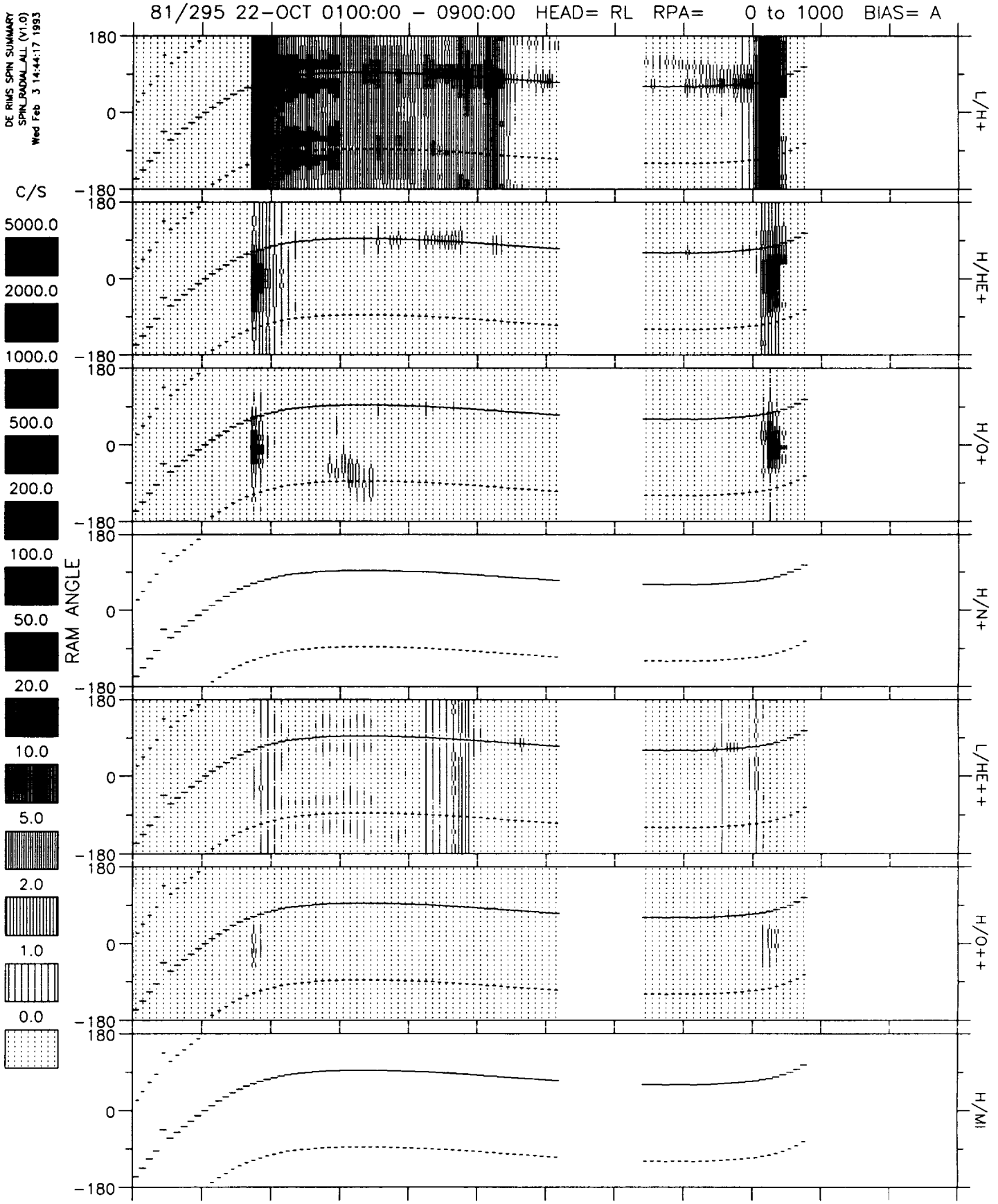

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 15:26:12 1993
81/293 20-OCT 1430:00 - 2230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1550 1630 1710 1750 0000 0000 1950 2030 2110 0000 DEGS
RE 0.0 2.8 3.7 4.3 4.6 0.0 0.0 3.9 3.1 1.9 0.0 HHMM
L 0.0 3.9 9.6 20.8 45.1 0.0 0.0 47.1 11.0 2.2 0.0 RE
MLT 0.0 8.8 8.4 7.8 6.9 0.0 0.0 23.8 22.2 21.2 0.0
MLAT 0.00 31.99 51.35 62.86 70.97 0.00 0.00 73.31 59.45 25.25 0.00 HRS
INVLAT 0.0 59.7 71.1 77.3 81.4 0.0 0.0 81.6 72.5 47.5 0.0 DEGS

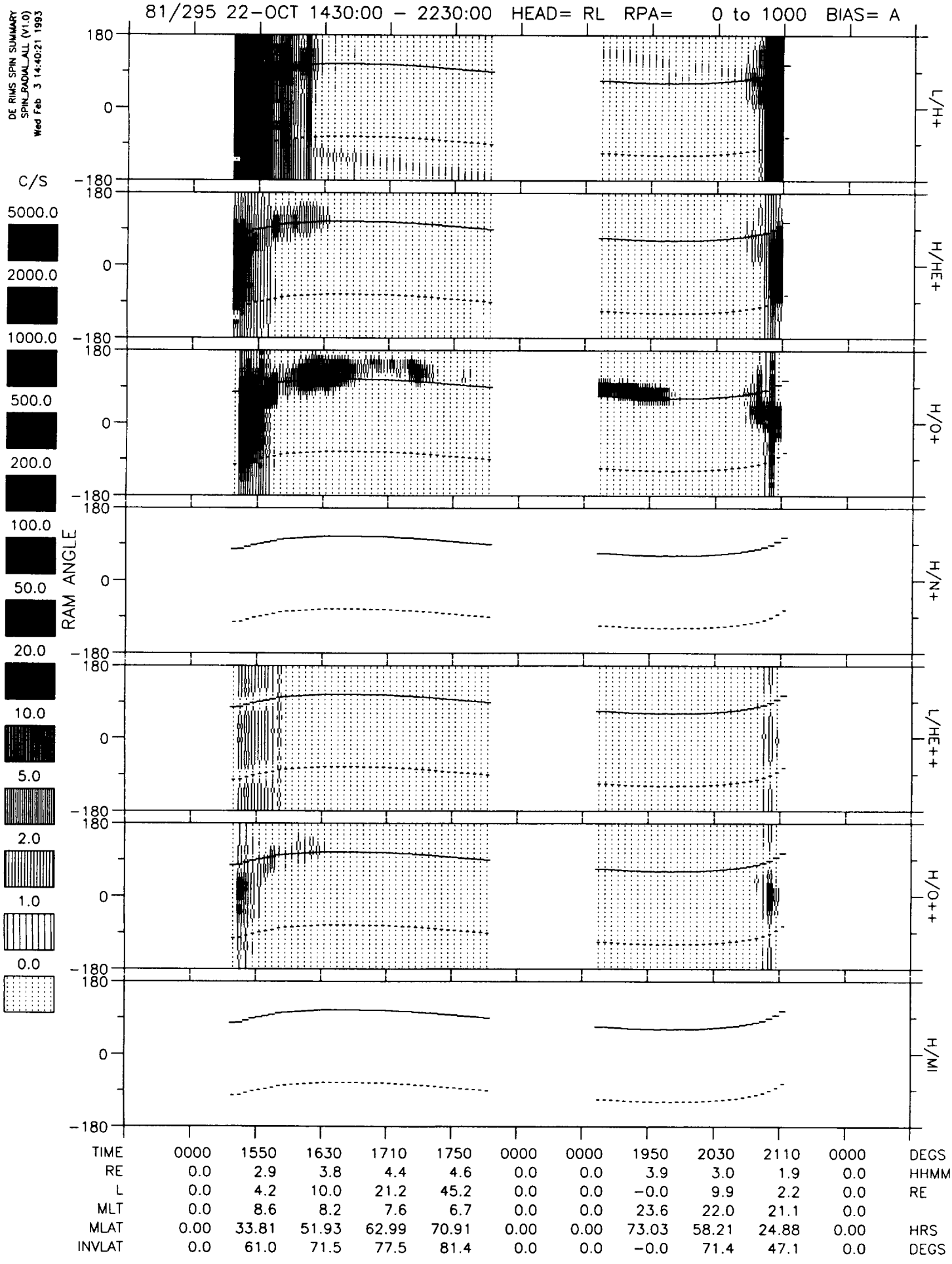

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 15:25:01 1993
81/293 20-OCT 2130:00 - 0530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0330 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 12.4 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 20.2 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 61.22 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 73.5 0.0 0.0 DEGS

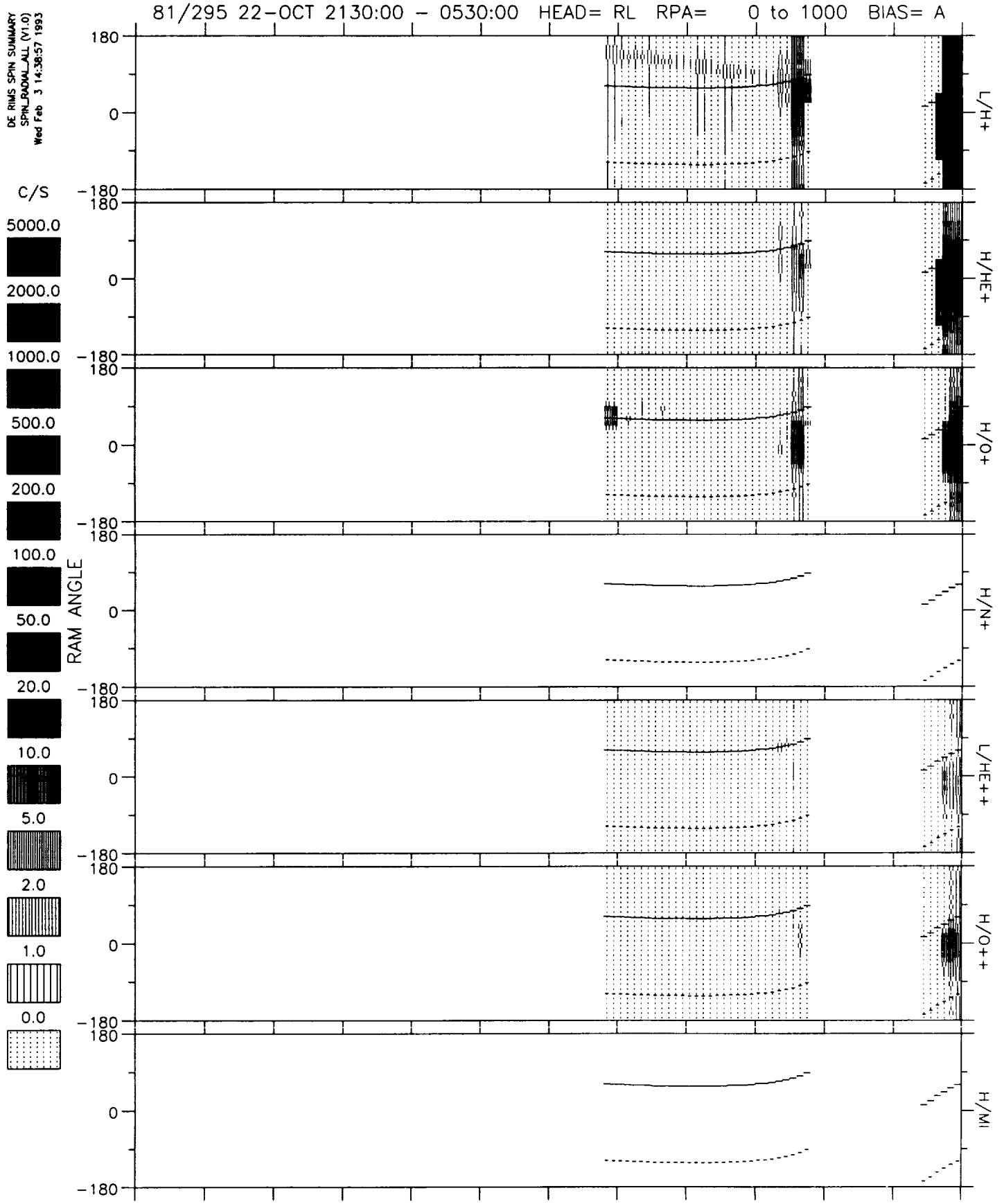

81/294 21-OCT 0430:00 - 1230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 15:22:56 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0510 0550 0630 0710 0750 0000 0910 0950 1030 0000 0000 DEGS
RE 2.1 3.3 4.0 4.5 4.7 0.0 4.2 3.6 2.6 0.0 0.0 HHMM
L 2.1 4.2 8.6 18.1 46.0 0.0 70.5 16.0 4.0 0.0 0.0 RE
MLT 9.1 9.5 10.0 10.6 11.7 0.0 18.4 20.0 20.7 0.0 0.0
MLAT -3.50 29.04 47.15 60.62 71.67 0.00 74.61 60.69 36.45 0.00 0.00 HRS
INVLAT 46.9 61.0 70.0 76.4 81.5 0.0 83.2 75.5 60.2 0.0 0.0 DEGS

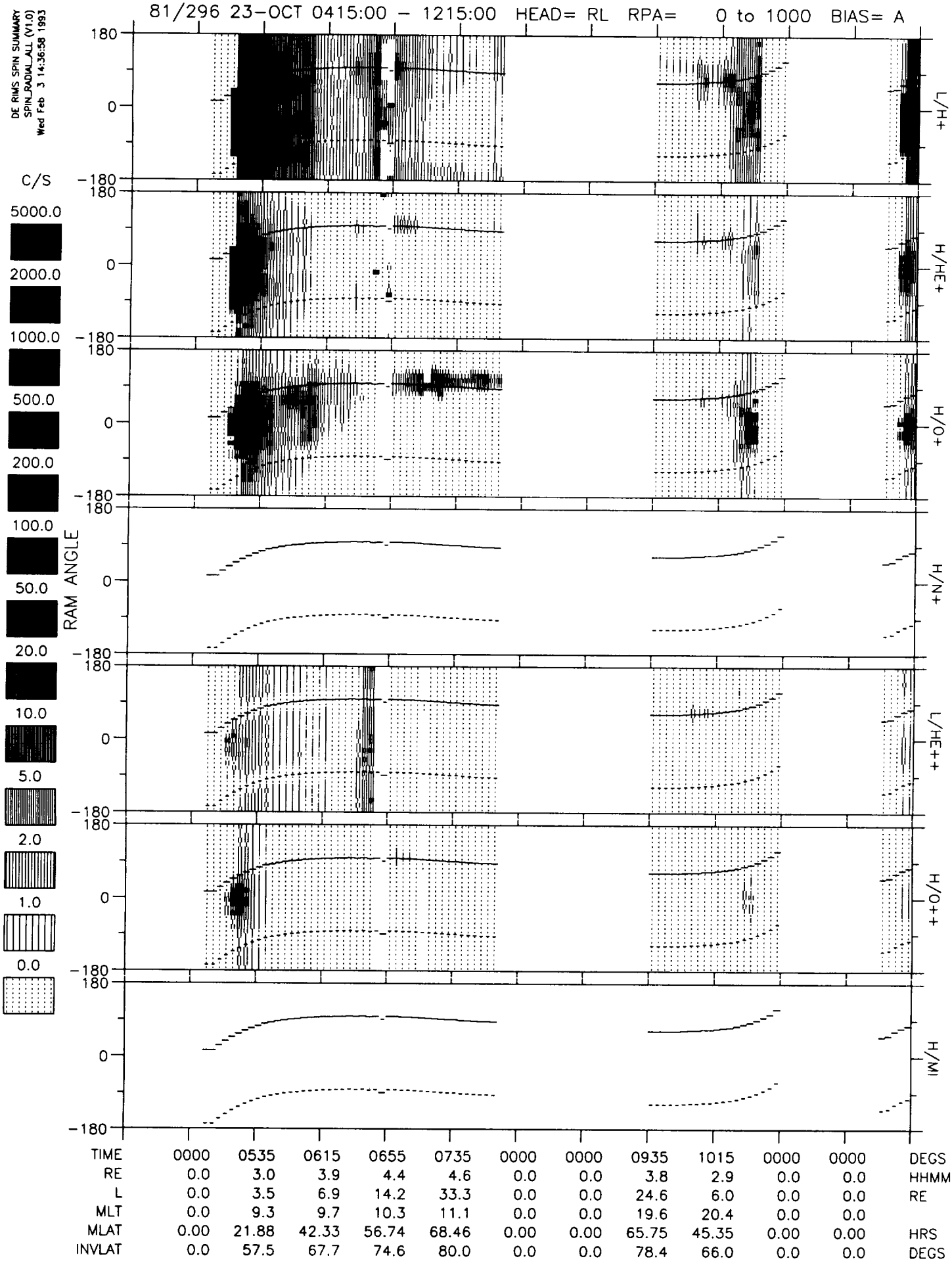

81/294 21-OCT 1115:00 - 1915:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 14:48:02 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0000 1235 1315 1355 1435 1515 1555 1635 1715 0000 0000 DEGS
RE 0.0 3.1 3.9 4.4 4.6 4.6 4.3 3.7 2.8 0.0 0.0 HHMM
L 0.0 5.6 15.4 47.5 100.0 100.0 74.0 18.8 5.3 0.0 0.0 RE
MLT 0.0 9.2 9.1 8.6 7.1 1.5 22.9 22.2 21.6 0.0 0.0
MLAT 0.00 41.96 60.19 72.78 82.39 84.22 75.04 62.84 43.34 0.00 0.00 HRS
INVLAT 0.0 65.1 75.2 81.7 86.4 87.8 83.3 76.7 64.2 0.0 0.0 DEGS

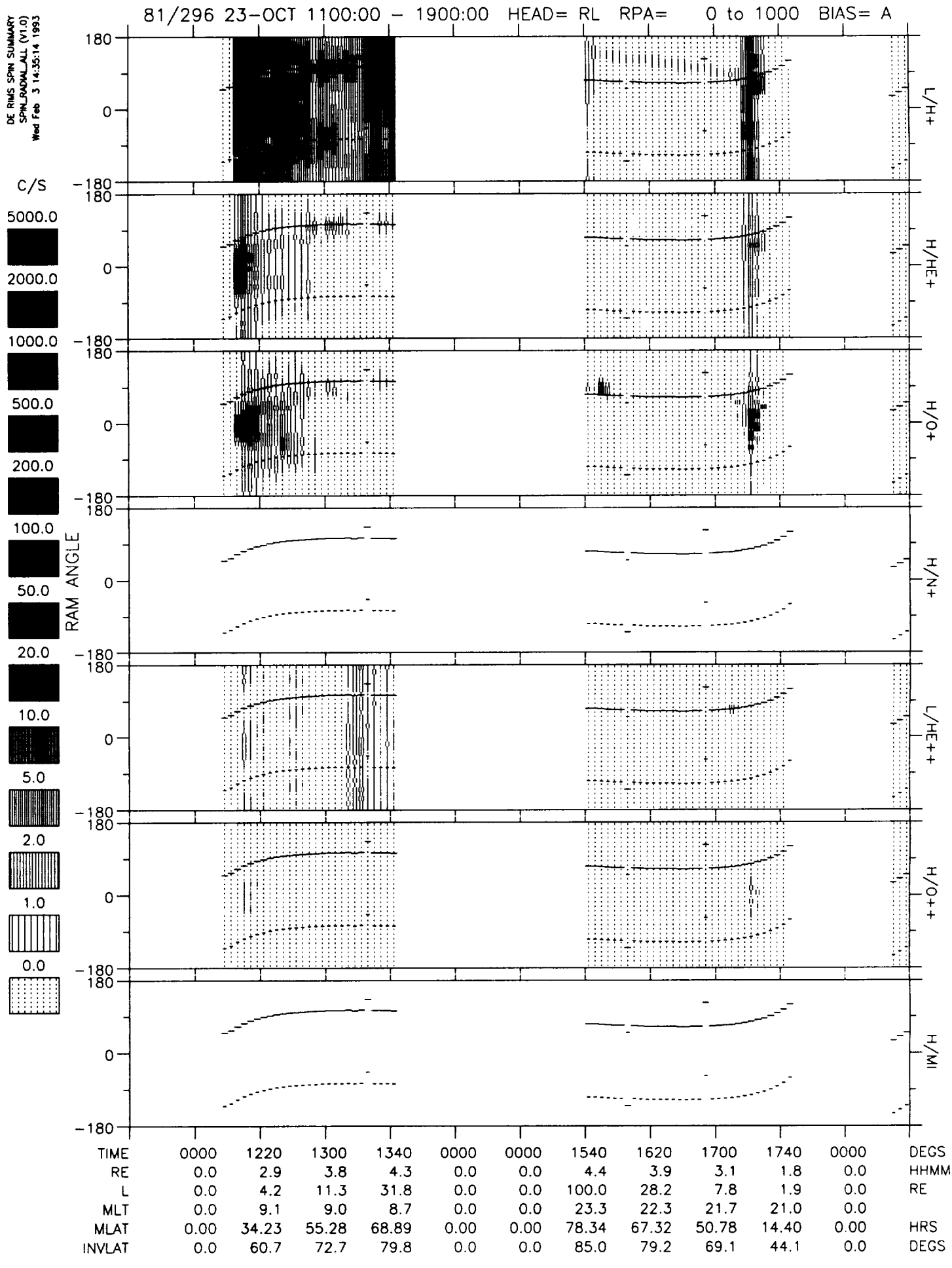

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 14:46:22 1993
81/294 21-OCT 1800:00 - 0200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1920 2000 0000 0000 0000 0000 0000 0000 0040 0120 DEGS
RE 0.0 3.0 3.8 0.0 0.0 0.0 0.0 0.0 2.9 1.7 1.4 HHMM
L 0.0 3.7 7.2 0.0 0.0 0.0 0.0 0.0 14.5 2.0 3.8 RE
MLT 0.0 8.5 8.2 0.0 0.0 0.0 0.0 0.0 21.3 20.8 8.8
MLAT 0.00 26.43 43.29 0.00 0.00 0.00 0.00 0.00 64.71 20.27 ***** HRS
INVLAT 0.0 58.5 68.2 0.0 0.0 0.0 0.0 0.0 74.8 44.4 59.4 DEGS

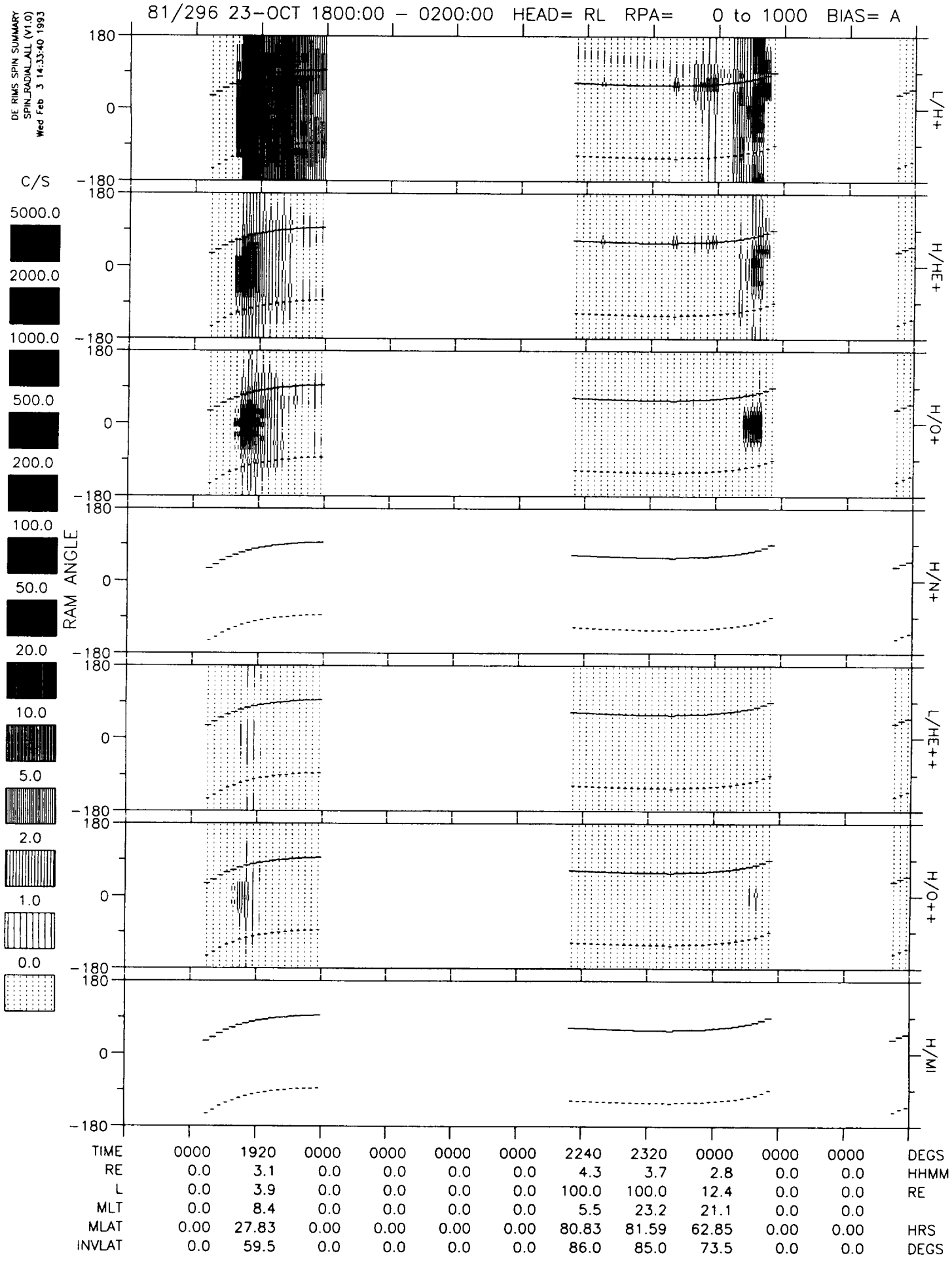

81/295 22-OCT 0100:00 – 0900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 14:44:17 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0140 0220 0300 0340 0420 0500 0000 0620 0700 0000 0000 DEGS
RE 2.1 3.2 4.0 4.5 4.7 4.6 0.0 3.6 2.7 0.0 0.0 HHMM
L 2.1 3.7 6.9 12.5 25.2 67.6 0.0 32.8 5.7 0.0 0.0 RE
MLT 8.8 9.0 9.2 9.6 10.2 11.5 0.0 18.9 20.2 0.0 0.0
MLAT ***** 21.37 39.24 52.47 63.85 74.07 0.00 69.97 47.24 0.00 0.00 HRS
INVLAT 45.9 58.9 67.5 73.6 78.5 83.0 0.0 79.9 65.3 0.0 0.0 DEGS

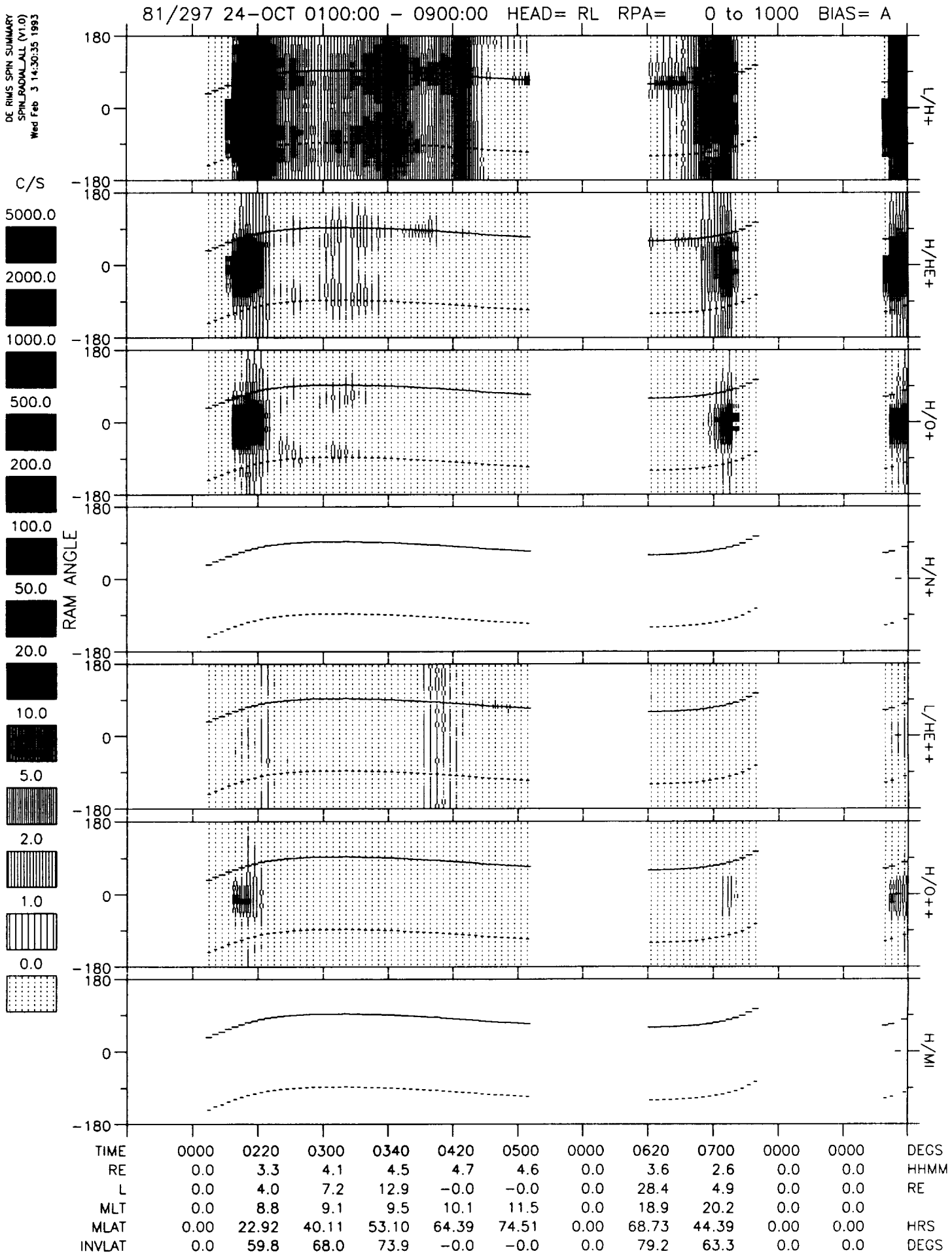

81/295 22-OCT 1430:00 - 2230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 14:40:21 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1550 1630 1710 1750 0000 0000 1950 2030 2110 0000 DEGS
RE 0.0 2.9 3.8 4.4 4.6 0.0 0.0 3.9 3.0 1.9 0.0 HHMM
L 0.0 4.2 10.0 21.2 45.2 0.0 0.0 -0.0 9.9 2.2 0.0 RE
MLT 0.0 8.6 8.2 7.6 6.7 0.0 0.0 23.6 22.0 21.1 0.0
MLAT 0.00 33.81 51.93 62.99 70.91 0.00 0.00 73.03 58.21 24.88 0.00 HRS
INVLAT 0.0 61.0 71.5 77.5 81.4 0.0 0.0 -0.0 71.4 47.1 0.0 DEGS

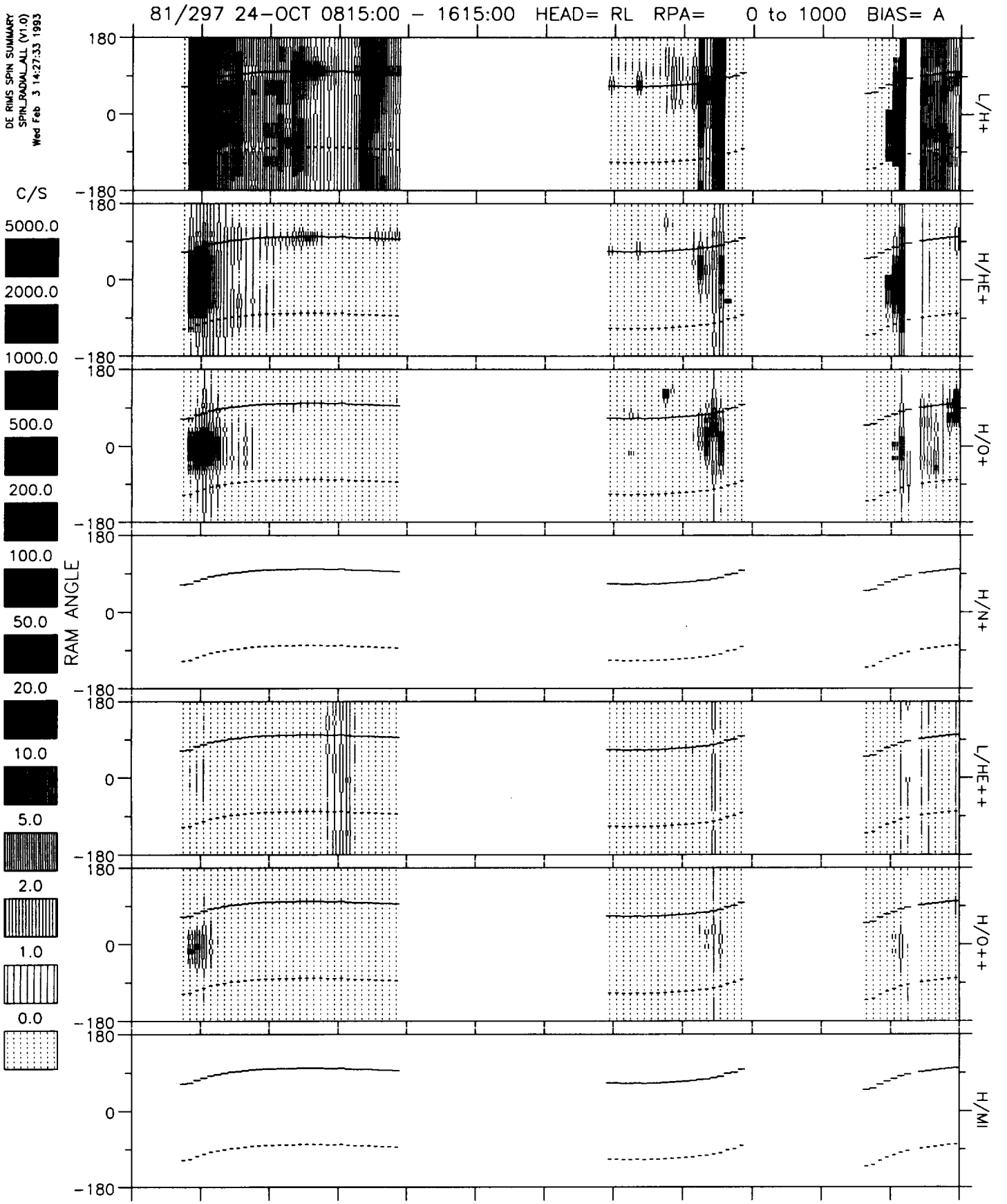

81/295 22-OCT 2130:00 - 0530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADVAL_ALL (V1.0)
Wed Feb 3 14:38:57 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0000 0000 0000 0000 0000 0000 0210 0250 0330 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 4.3 3.7 2.8 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 -0.0 -0.0 10.3 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 10.3 18.6 20.1 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 82.39 80.93 58.84 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 -0.0 -0.0 71.8 0.0 0.0 DEGS

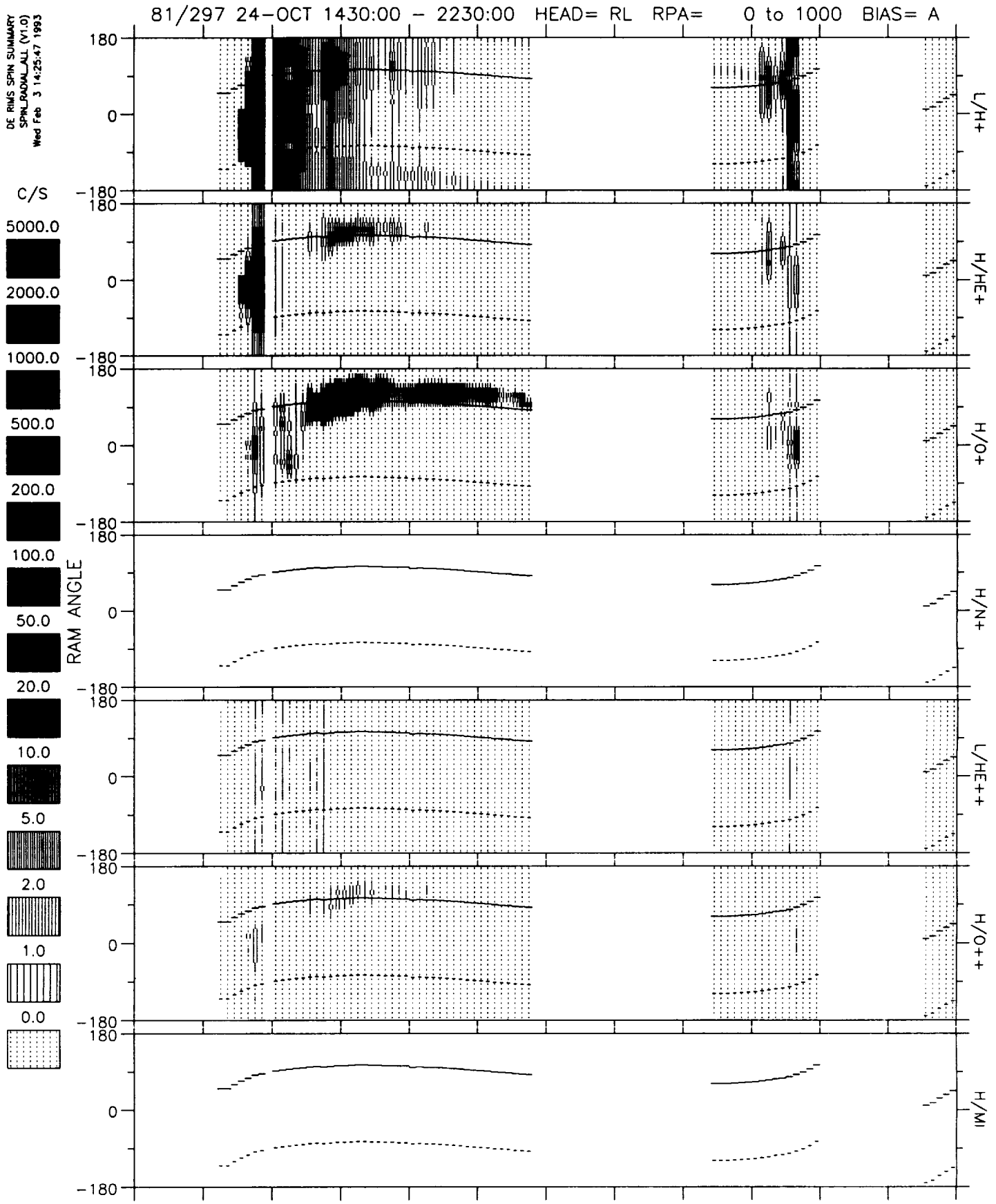

81/296 23-OCT 0415:00 - 1215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 14:36:58 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0535 0615 0655 0735 0000 0000 0935 1015 0000 0000 DEGS
RE 0.0 3.0 3.9 4.4 4.6 0.0 0.0 3.8 2.9 0.0 0.0 HHMM
L 0.0 3.5 6.9 14.2 33.3 0.0 0.0 24.6 6.0 0.0 0.0 RE
MLT 0.0 9.3 9.7 10.3 11.1 0.0 0.0 19.6 20.4 0.0 0.0
MLAT 0.00 21.88 42.33 56.74 68.46 0.00 0.00 65.75 45.35 0.00 0.00 HRS
INVLAT 0.0 57.5 67.7 74.6 80.0 0.0 0.0 78.4 66.0 0.0 0.0 DEGS

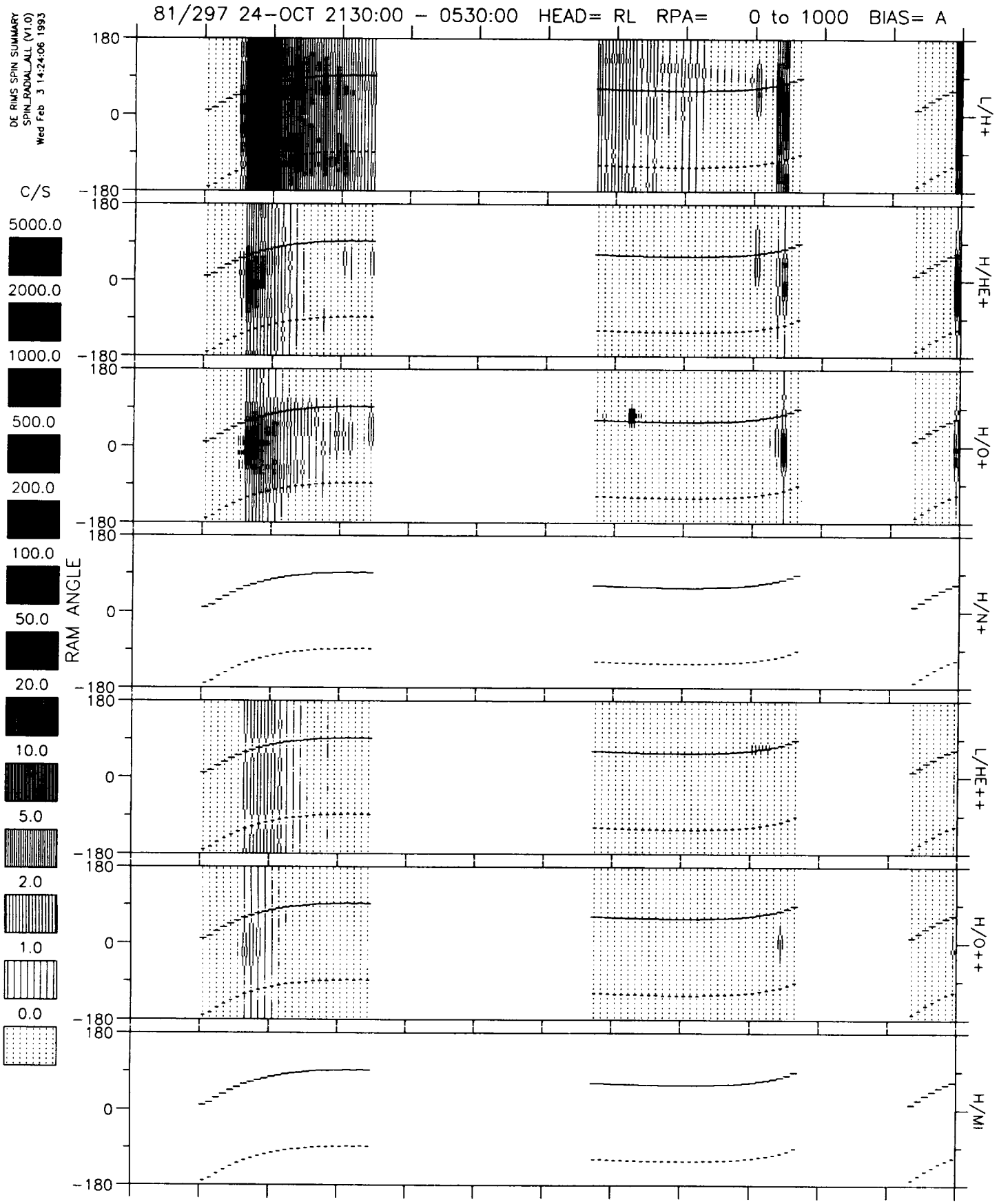

81/296 23-OCT 1100:00 - 1900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 14:35:14 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1220 1300 1340 0000 0000 1540 1620 1700 1740 0000 DEGS
RE 0.0 2.9 3.8 4.3 0.0 0.0 4.4 3.9 3.1 1.8 0.0 HHMM
L 0.0 4.2 11.3 31.8 0.0 0.0 100.0 28.2 7.8 1.9 0.0 RE
MLT 0.0 9.1 9.0 8.7 0.0 0.0 23.3 22.3 21.7 21.0 0.0
MLAT 0.00 34.23 55.28 68.89 0.00 0.00 78.34 67.32 50.78 14.40 0.00 HRS
INVLAT 0.0 60.7 72.7 79.8 0.0 0.0 85.0 79.2 69.1 44.1 0.0 DEGS

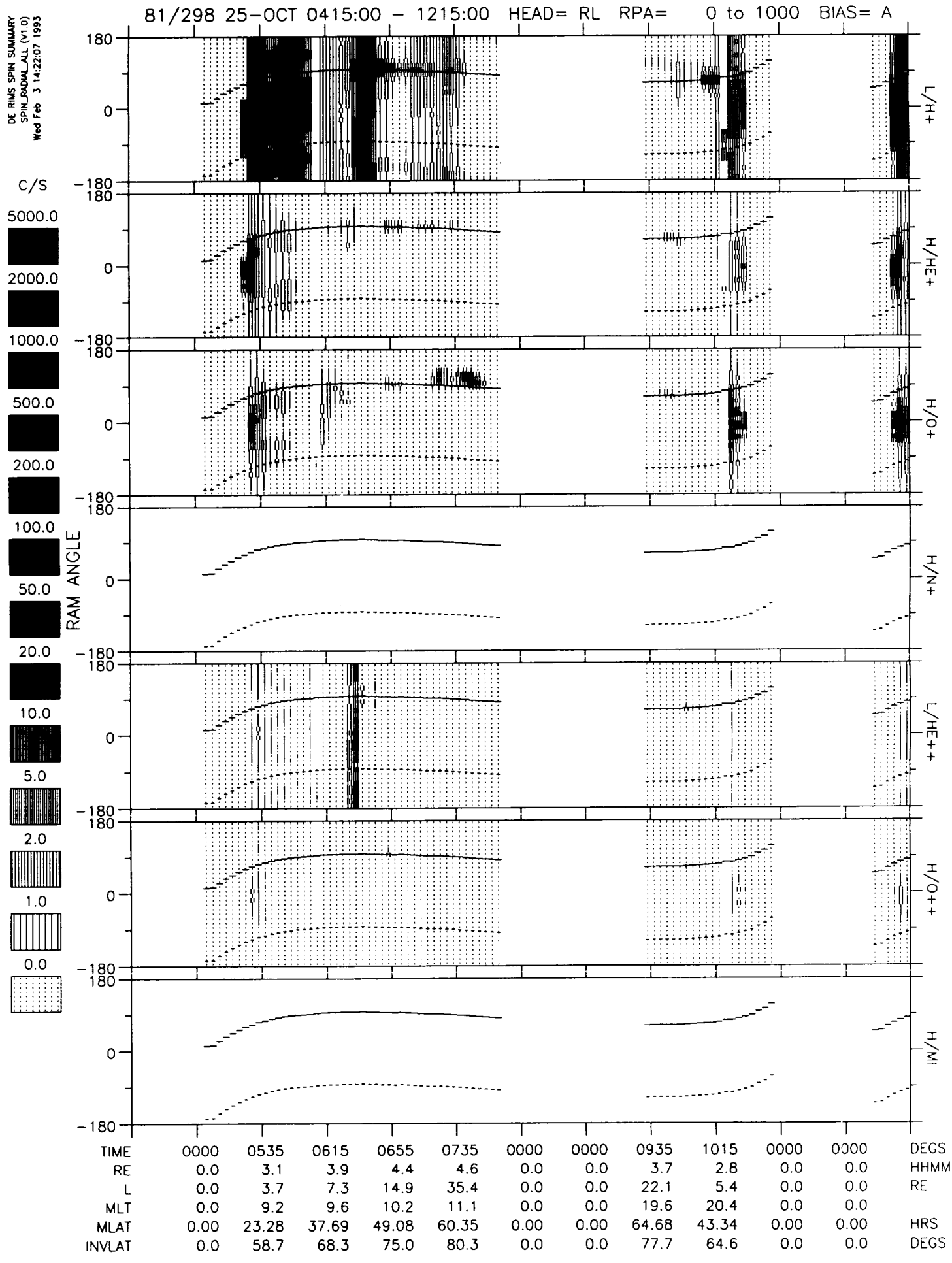

81/296 23-OCT 1800:00 – 0200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 14:33:40 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0000 1920 0000 0000 0000 0000 2240 2320 0000 0000 0000 DEGS
RE 0.0 3.1 0.0 0.0 0.0 0.0 4.3 3.7 2.8 0.0 0.0 HHMM
L 0.0 3.9 0.0 0.0 0.0 0.0 100.0 100.0 12.4 0.0 0.0 RE
MLT 0.0 8.4 0.0 0.0 0.0 0.0 5.5 23.2 21.1 0.0 0.0
MLAT 0.00 27.83 0.00 0.00 0.00 0.00 80.83 81.59 62.85 0.00 0.00 HRS
INVLAT 0.0 59.5 0.0 0.0 0.0 0.0 86.0 85.0 73.5 0.0 0.0 DEGS

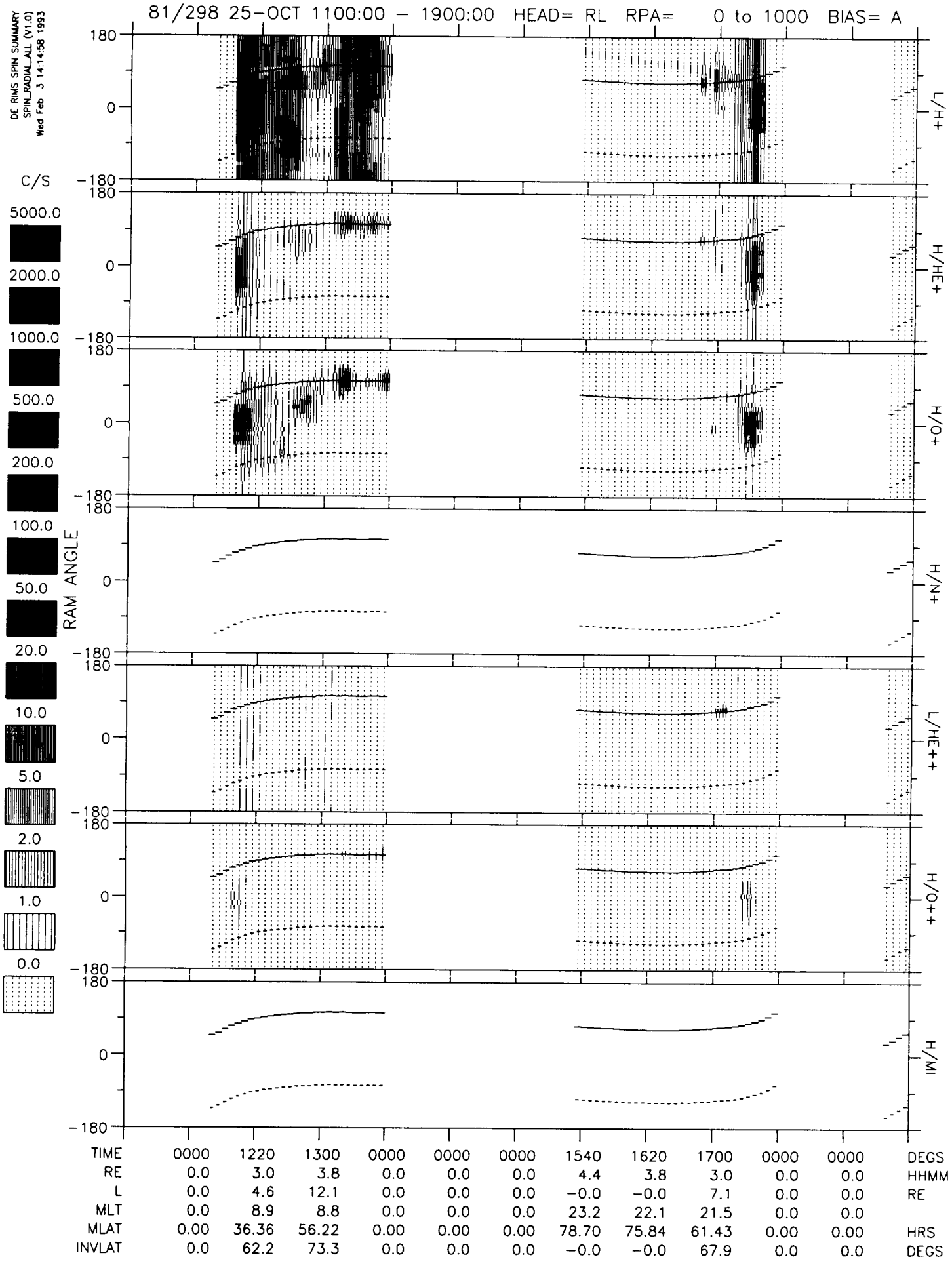

81/297 24-OCT 0100:00 - 0900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 14:30:35 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0220 0300 0340 0420 0500 0000 0620 0700 0000 0000 DEGS
RE 0.0 3.3 4.1 4.5 4.7 4.6 0.0 3.6 2.6 0.0 0.0 HHMM
L 0.0 4.0 7.2 12.9 -0.0 -0.0 0.0 28.4 4.9 0.0 0.0 RE
MLT 0.0 8.8 9.1 9.5 10.1 11.5 0.0 18.9 20.2 0.0 0.0
MLAT 0.00 22.92 40.11 53.10 64.39 74.51 0.00 68.73 44.39 0.00 0.00 HRS
INVLAT 0.0 59.8 68.0 73.9 -0.0 -0.0 0.0 79.2 63.3 0.0 0.0 DEGS

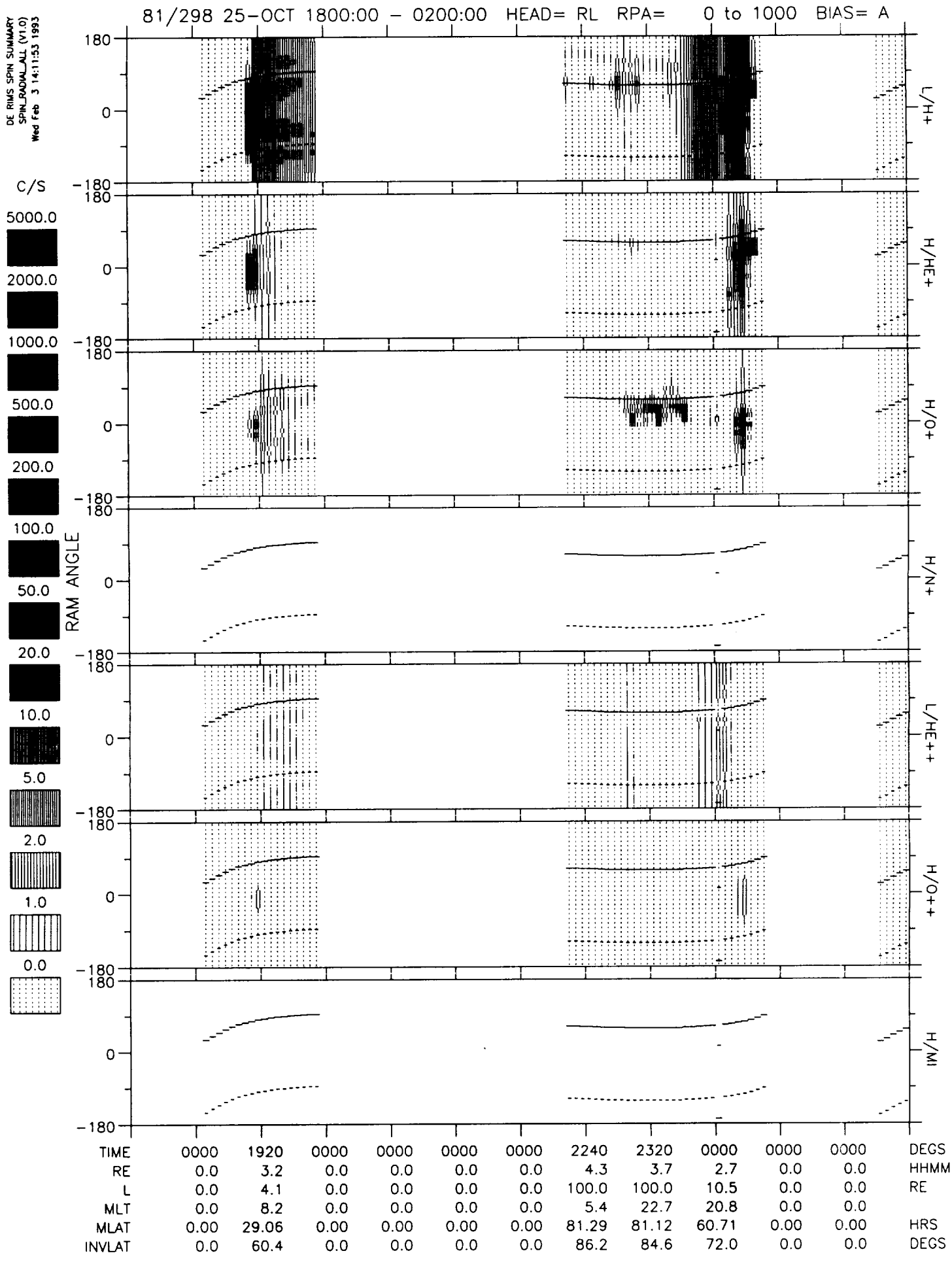

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 14:27:33 1993
81/297 24-OCT 0815:00 - 1615:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0855 0935 1015 0000 0000 0000 1255 1335 0000 0000 1535 DEGS
RE 2.9 3.8 4.4 0.0 0.0 0.0 3.9 3.0 0.0 0.0 2.6 HHMM
L 3.7 8.8 22.4 0.0 0.0 0.0 23.1 6.5 0.0 0.0 3.2 RE
MLT 9.3 9.7 10.1 0.0 0.0 0.0 20.8 21.0 0.0 0.0 8.6
MLAT 29.20 50.54 65.25 0.00 0.00 0.00 64.57 45.45 0.00 0.00 25.41 HRS
INVLAT 58.7 70.3 77.8 0.0 0.0 0.0 78.0 66.8 0.0 0.0 56.1 DEGS

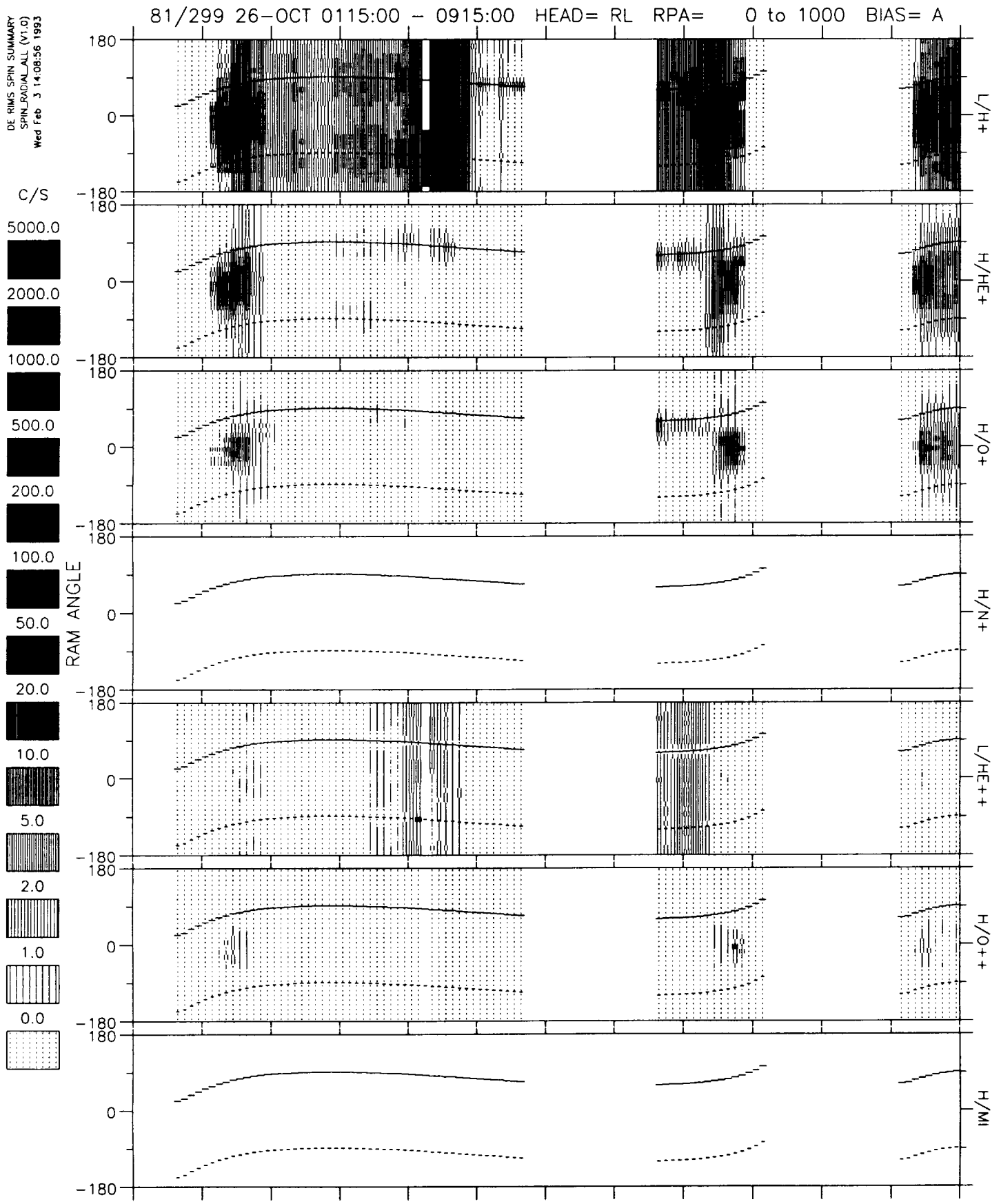

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 14:25:47 1993
81/297 24-OCT 1430:00 - 2230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1550 1630 1710 1750 0000 0000 0000 2030 0000 0000 DEGS
RE 0.0 3.0 3.9 4.4 4.6 0.0 0.0 0.0 2.9 0.0 0.0 HHMM
L 0.0 4.6 10.4 21.6 45.2 0.0 0.0 0.0 8.8 0.0 0.0 RE
MLT 0.0 8.5 8.0 7.4 6.6 0.0 0.0 0.0 21.8 0.0 0.0
MLAT 0.00 35.44 52.46 63.10 70.86 0.00 0.00 0.00 56.81 0.00 0.00 HRS
INVLAT 0.0 62.1 71.9 77.6 81.4 0.0 0.0 0.0 70.3 0.0 0.0 DEGS

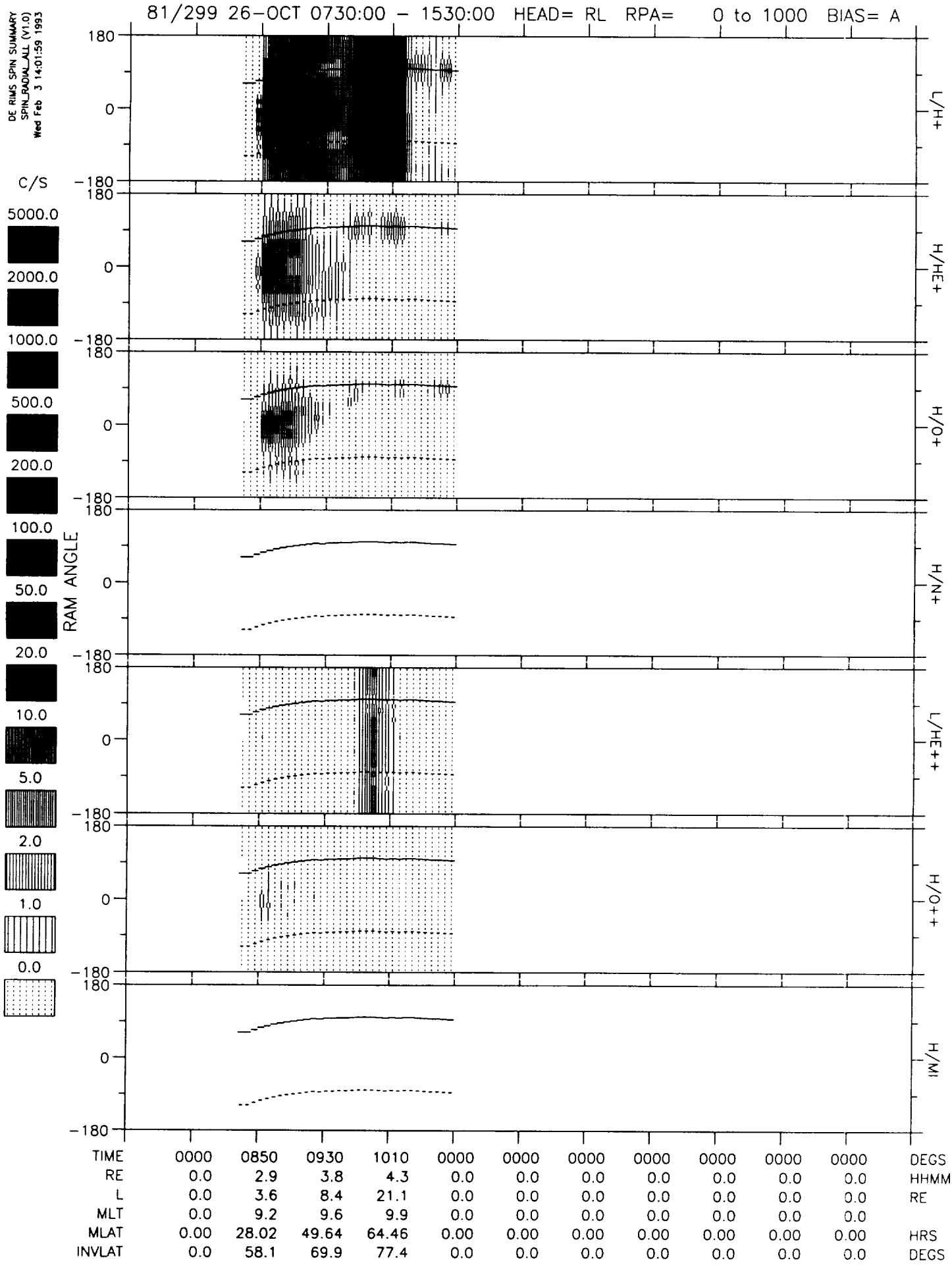

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 14:24:06 1993
81/297 24-OCT 2130:00 - 0530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2210 2250 2330 0000 0000 0000 0210 0250 0330 0000 0000 DEGS
RE 2.1 3.3 4.0 0.0 0.0 0.0 4.2 3.6 2.6 0.0 0.0 HHMM
L 2.1 3.8 6.7 0.0 0.0 0.0 100.0 100.0 8.5 0.0 0.0 RE
MLT 8.7 8.4 8.3 0.0 0.0 0.0 10.5 18.6 20.0 0.0 0.0
MLAT -8.18 22.55 38.66 0.00 0.00 0.00 82.85 79.72 56.15 0.00 0.00 HRS
INVLAT 46.3 59.1 67.3 0.0 0.0 0.0 87.1 84.6 70.0 0.0 0.0 DEGS

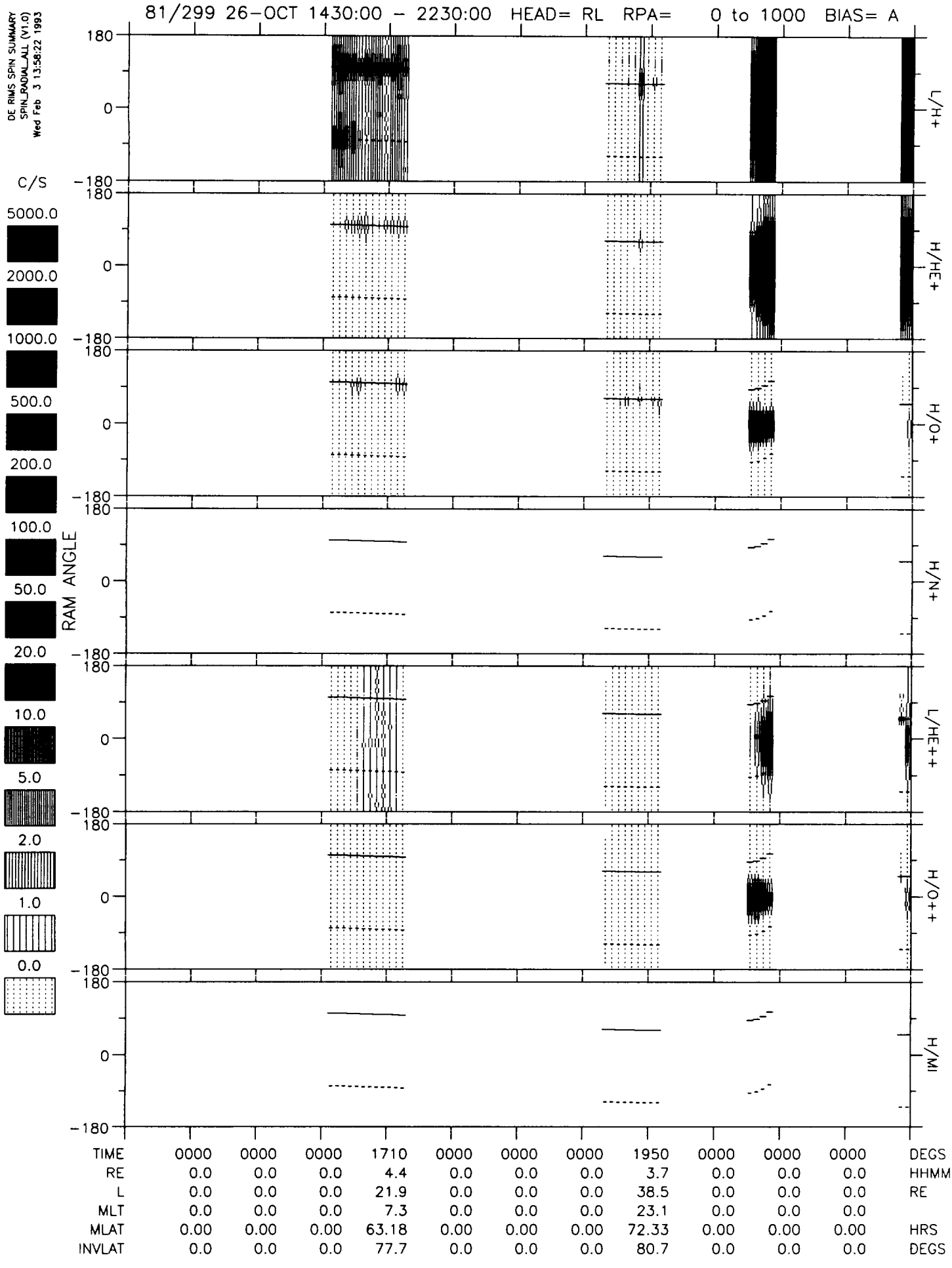

81/298 25-OCT 0415:00 - 1215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 14:22:07 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0535 0615 0655 0735 0000 0000 0935 1015 0000 0000 DEGS
RE 0.0 3.1 3.9 4.4 4.6 0.0 0.0 3.7 2.8 0.0 0.0 HHMM
L 0.0 3.7 7.3 14.9 35.4 0.0 0.0 22.1 5.4 0.0 0.0 RE
MLT 0.0 9.2 9.6 10.2 11.1 0.0 0.0 19.6 20.4 0.0 0.0
MLAT 0.00 23.28 37.69 49.08 60.35 0.00 0.00 64.68 43.34 0.00 0.00 HRS
INVLAT 0.0 58.7 68.3 75.0 80.3 0.0 0.0 77.7 64.6 0.0 0.0 DEGS

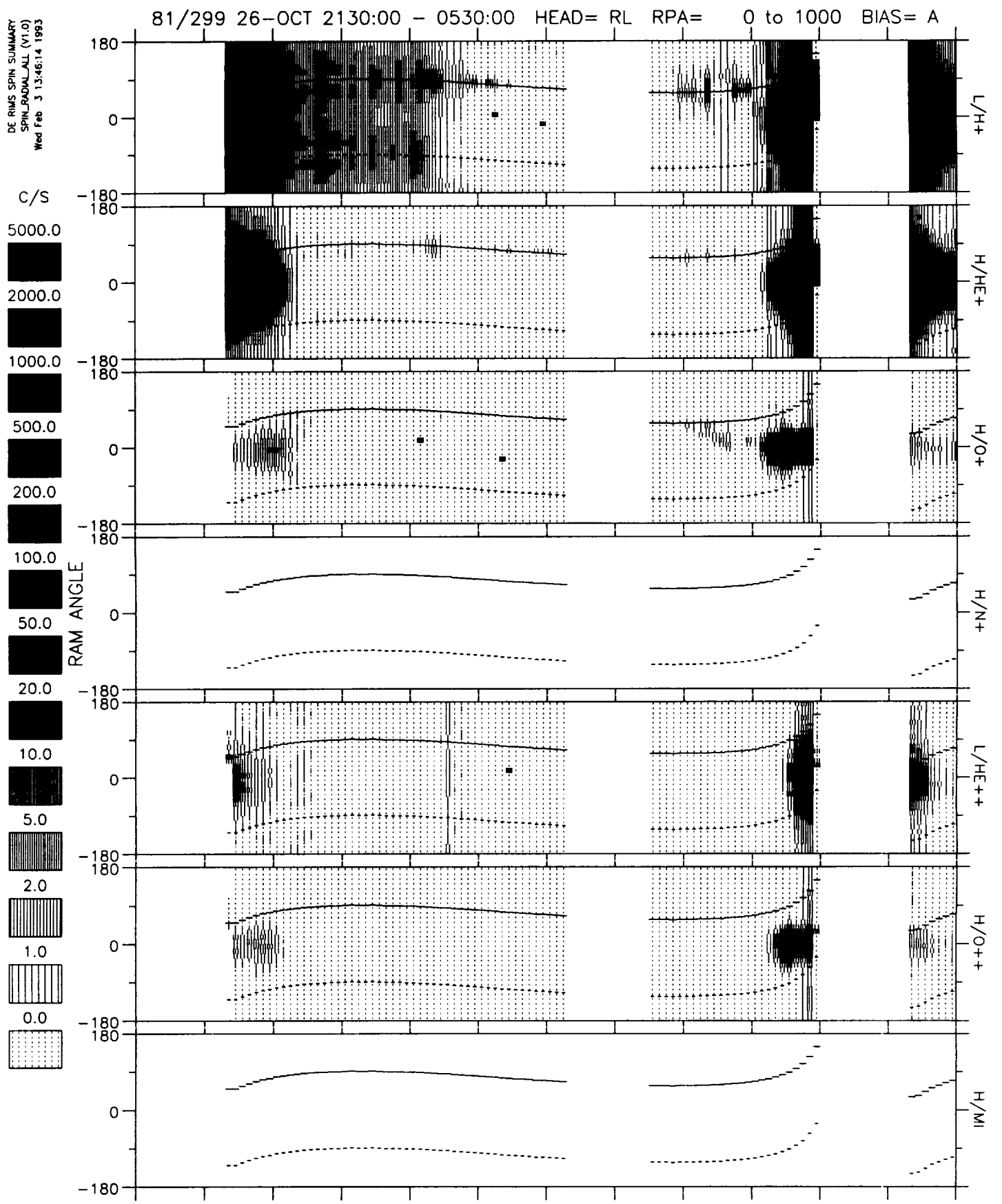

81/298 25-OCT 1100:00 – 1900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 14:14:58 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1220 1300 0000 0000 0000 1540 1620 1700 0000 0000 DEGS
RE 0.0 3.0 3.8 0.0 0.0 0.0 4.4 3.8 3.0 0.0 0.0 HHMM
L 0.0 4.6 12.1 0.0 0.0 0.0 -0.0 -0.0 7.1 0.0 0.0 RE
MLT 0.0 8.9 8.8 0.0 0.0 0.0 23.2 22.1 21.5 0.0 0.0
MLAT 0.00 36.36 56.22 0.00 0.00 0.00 78.70 75.84 61.43 0.00 0.00 HRS
INVLAT 0.0 62.2 73.3 0.0 0.0 0.0 -0.0 -0.0 67.9 0.0 0.0 DEGS

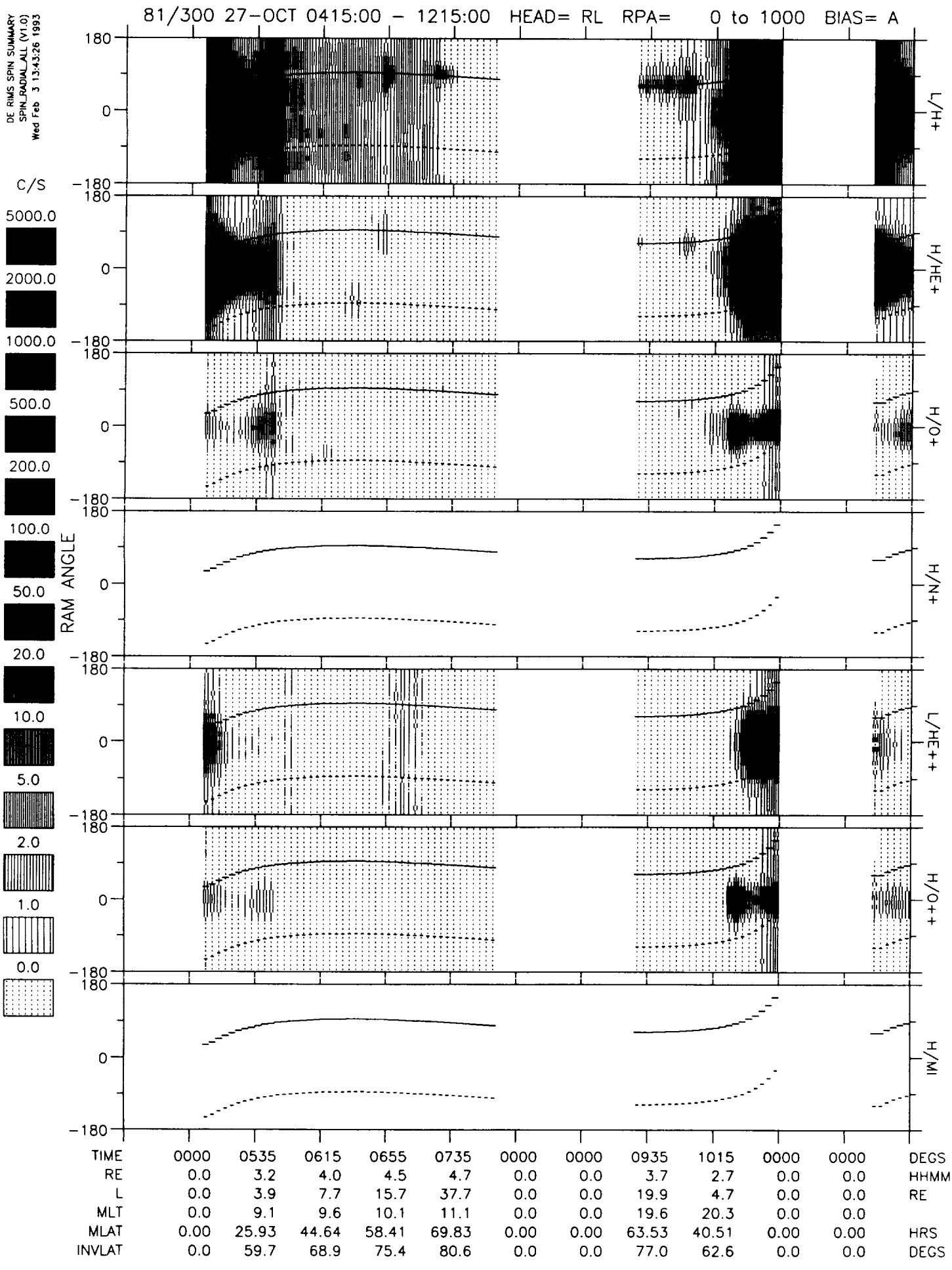

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 14:11:53 1993
81/298 25-OCT 1800:00 - 0200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1920 0000 0000 0000 0000 2240 2320 0000 0000 0000 DEGS
RE 0.0 3.2 0.0 0.0 0.0 0.0 4.3 3.7 2.7 0.0 0.0 HHMM
L 0.0 4.1 0.0 0.0 0.0 0.0 100.0 100.0 10.5 0.0 0.0 RE
MLT 0.0 8.2 0.0 0.0 0.0 0.0 5.4 22.7 20.8 0.0 0.0
MLAT 0.00 29.06 0.00 0.00 0.00 0.00 81.29 81.12 60.71 0.00 0.00 HRS
INVLAT 0.0 60.4 0.0 0.0 0.0 0.0 86.2 84.6 72.0 0.0 0.0 DEGS

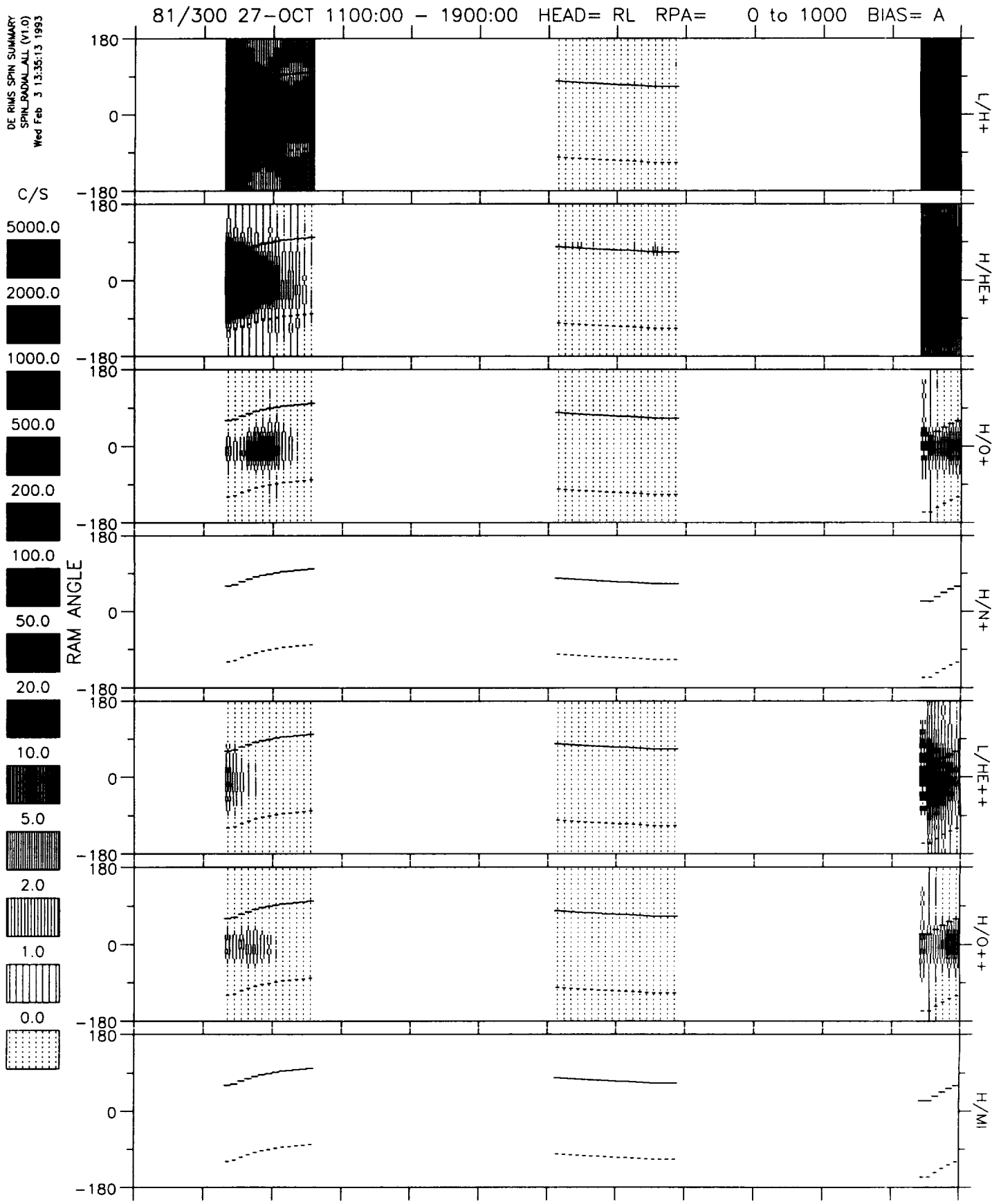

81/299 26-OCT 0115:00 - 0915:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 14:08:56 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0155 0235 0315 0355 0435 0000 0000 0635 0715 0000 0000 DEGS
RE 2.8 3.7 4.3 4.6 4.6 0.0 0.0 3.1 1.9 0.0 0.0 HHMM
L 2.8 5.2 9.2 17.1 38.1 0.0 0.0 12.4 2.2 0.0 0.0 RE
MLT 8.6 8.8 9.1 9.6 10.5 0.0 0.0 19.5 20.5 0.0 0.0
MLAT 9.20 31.28 46.00 58.04 68.87 0.00 0.00 59.66 22.92 0.00 0.00 HRS
INVLAT 53.4 63.9 70.8 76.0 80.7 0.0 0.0 73.5 48.0 0.0 0.0 DEGS

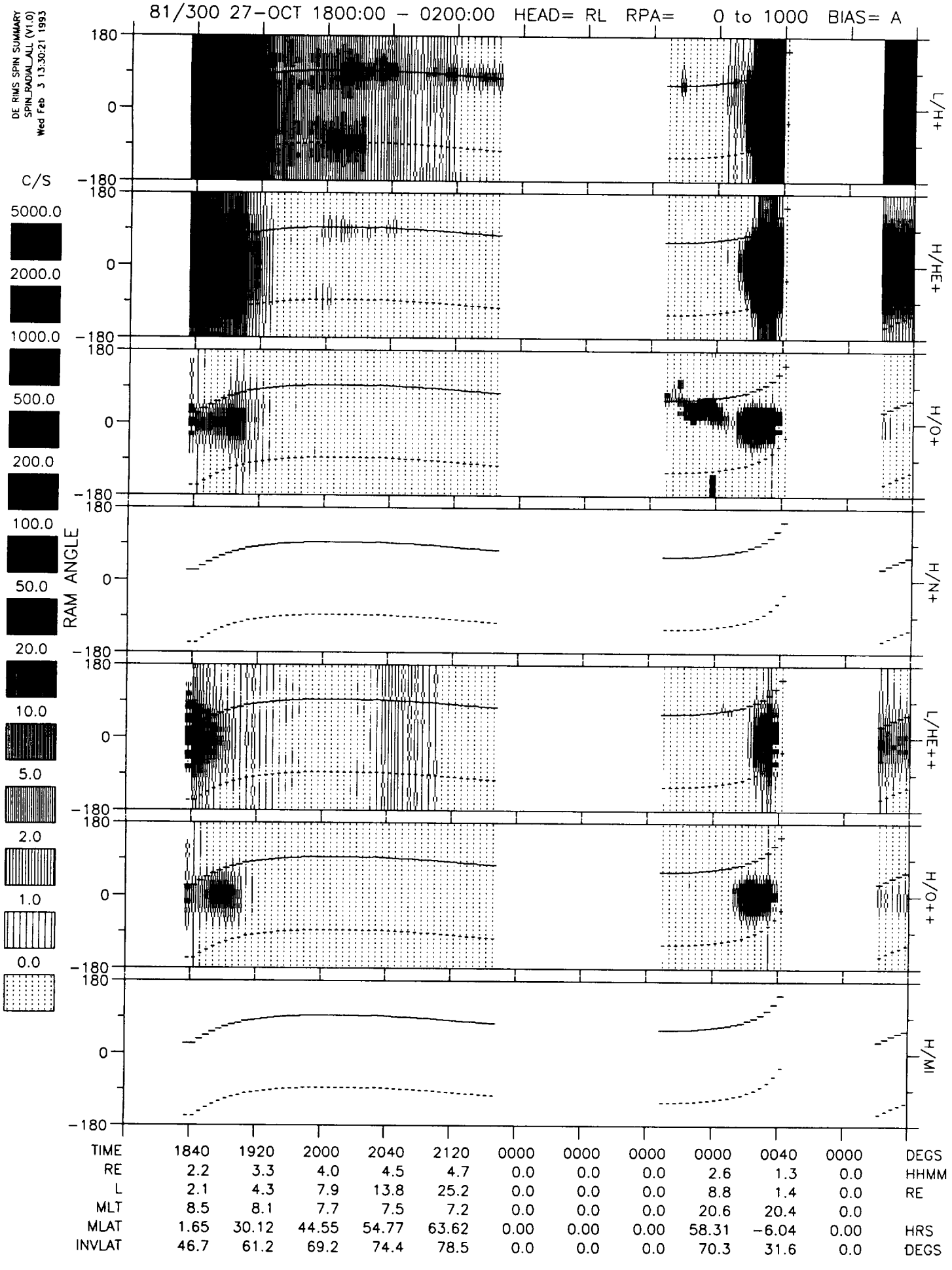

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 14:01:59 1993
81/299 26-OCT 0730:00 - 1530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0000 0850 0930 1010 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 2.9 3.8 4.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 3.6 8.4 21.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 9.2 9.6 9.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 28.02 49.64 64.46 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 58.1 69.9 77.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

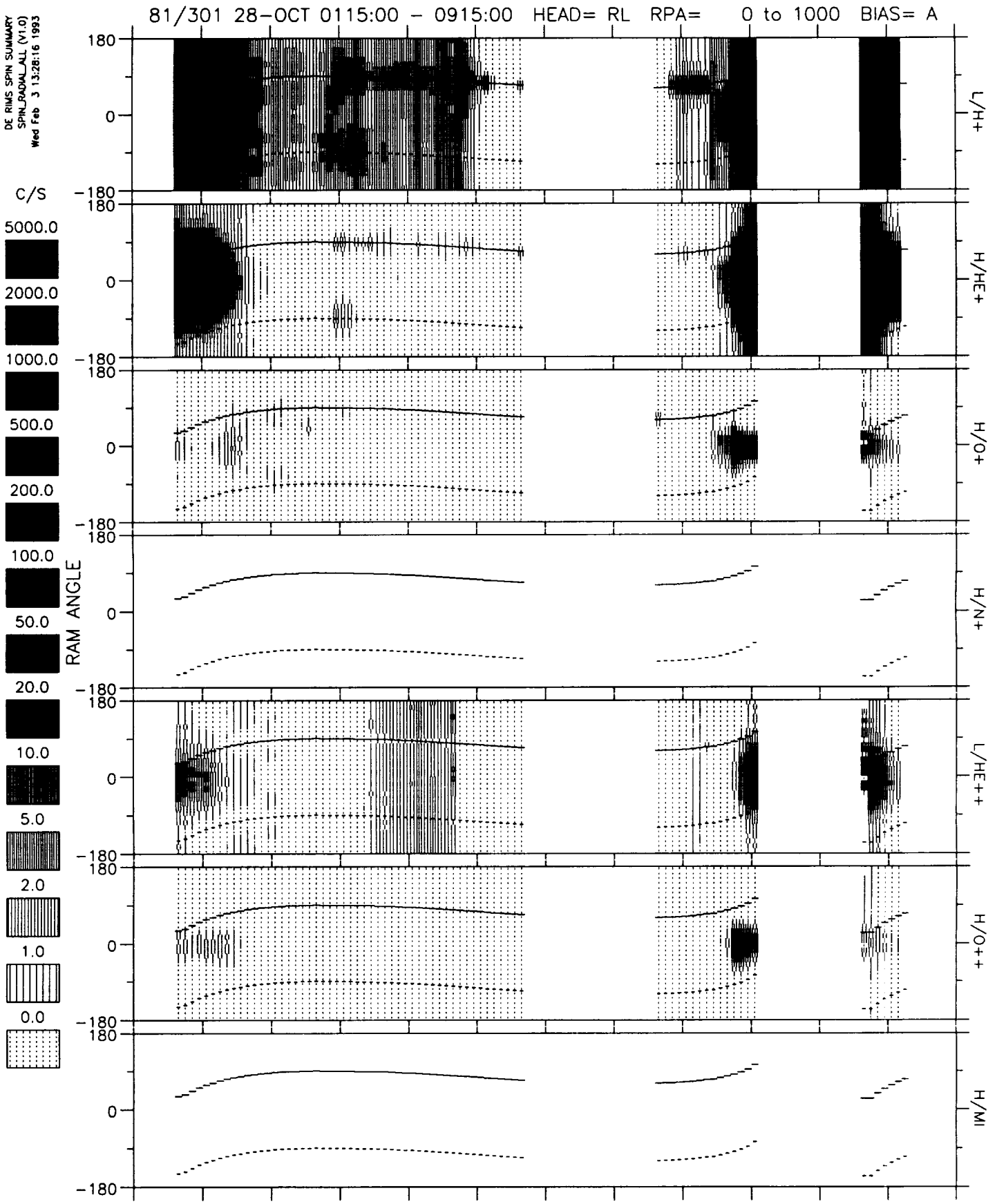

81/299 26-OCT 1430:00 - 2230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 13:58:22 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0000 0000 0000 1710 0000 0000 0000 1950 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 4.4 0.0 0.0 0.0 3.7 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 21.9 0.0 0.0 0.0 38.5 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 7.3 0.0 0.0 0.0 23.1 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 63.18 0.00 0.00 0.00 72.33 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 77.7 0.0 0.0 0.0 80.7 0.0 0.0 0.0 DEGS


81/299 26-OCT 2130:00 - 0530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 13:46:14 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 2250 2330 0010 0050 0130 0000 0250 0330 0000 0000 DEGS
RE 0.0 3.3 4.1 4.5 4.7 4.6 0.0 3.5 2.5 0.0 0.0 HHMM
L 0.0 4.0 7.0 11.9 22.0 54.5 0.0 86.8 7.0 0.0 0.0 RE
MLT 0.0 8.3 8.2 8.3 8.4 8.9 0.0 18.6 20.0 0.0 0.0
MLAT 0.00 23.81 39.28 50.99 61.51 72.11 0.00 78.40 53.13 0.00 0.00 HRS
INVLAT 0.0 59.9 67.7 73.2 77.7 82.2 0.0 83.8 67.8 0.0 0.0 DEGS

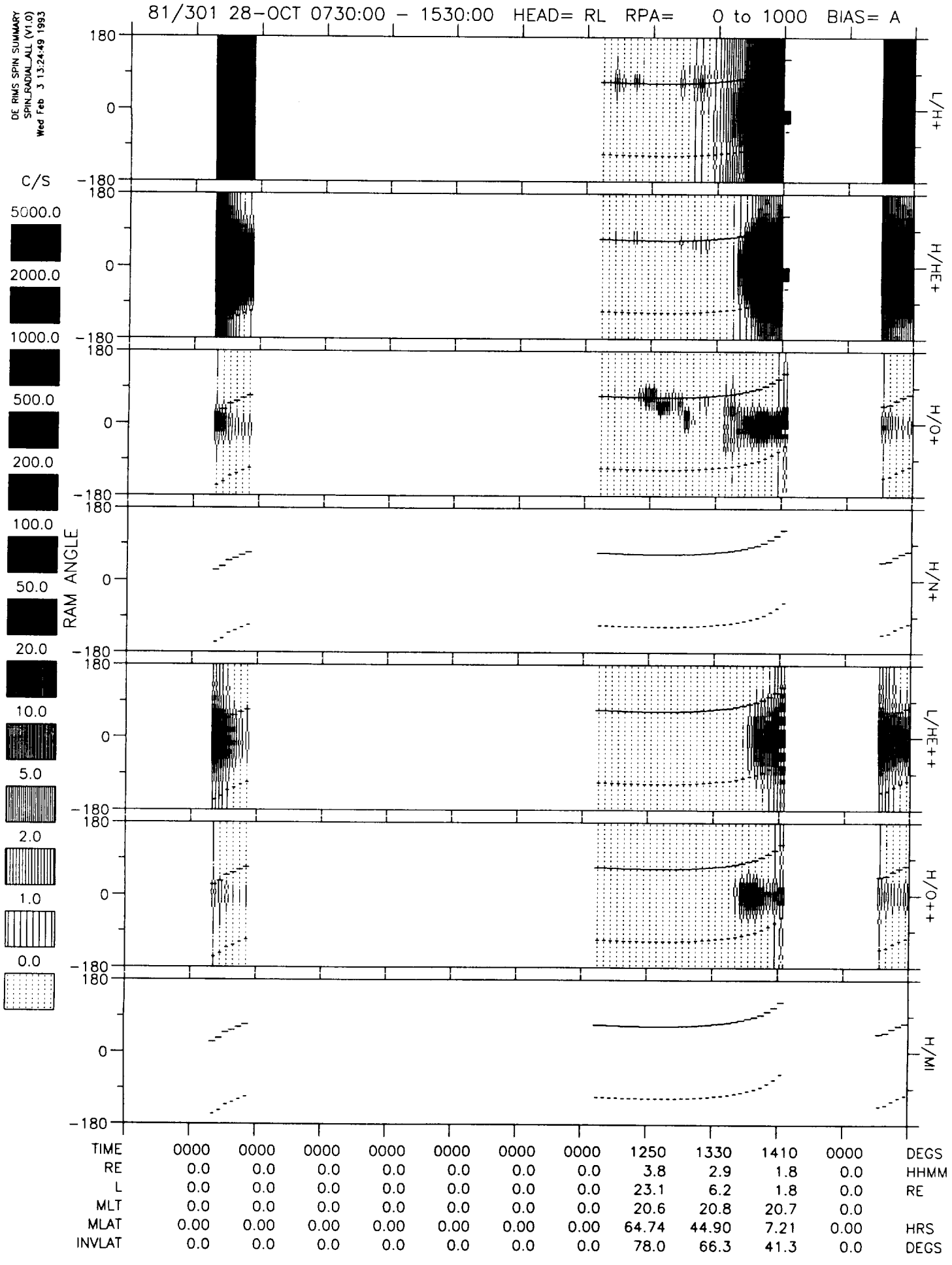

81/300 27-OCT 0415:00 - 1215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 13:43:26 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0535 0615 0655 0735 0000 0000 0935 1015 0000 0000 DEGS
RE 0.0 3.2 4.0 4.5 4.7 0.0 0.0 3.7 2.7 0.0 0.0 HHMM
L 0.0 3.9 7.7 15.7 37.7 0.0 0.0 19.9 4.7 0.0 0.0 RE
MLT 0.0 9.1 9.6 10.1 11.1 0.0 0.0 19.6 20.3 0.0 0.0
MLAT 0.00 25.93 44.64 58.41 69.83 0.00 0.00 63.53 40.51 0.00 0.00 HRS
INVLAT 0.0 59.7 68.9 75.4 80.6 0.0 0.0 77.0 62.6 0.0 0.0 DEGS

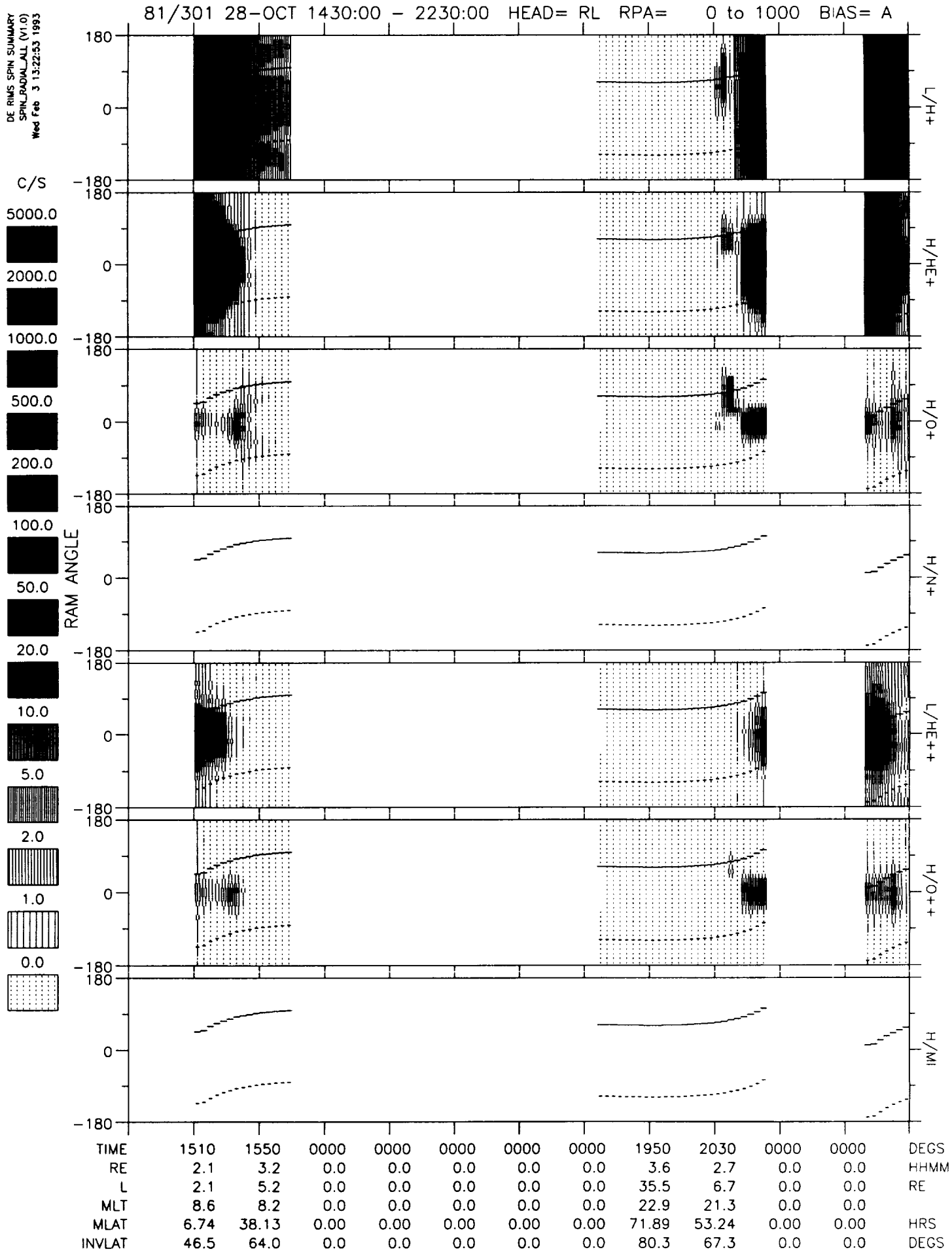

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 13:35:13 1993
81/300 27-OCT 1100:00 - 1900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 1220 0000 0000 0000 0000 1540 0000 0000 0000 0000 DEGS
RE 0.0 3.1 0.0 0.0 0.0 0.0 4.3 0.0 0.0 0.0 0.0 HHMM
L 0.0 5.0 0.0 0.0 0.0 0.0 100.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 8.8 0.0 0.0 0.0 0.0 23.1 0.0 0.0 0.0 0.0
MLAT 0.00 38.33 0.00 0.00 0.00 0.00 77.53 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 63.4 0.0 0.0 0.0 0.0 84.5 0.0 0.0 0.0 0.0 DEGS

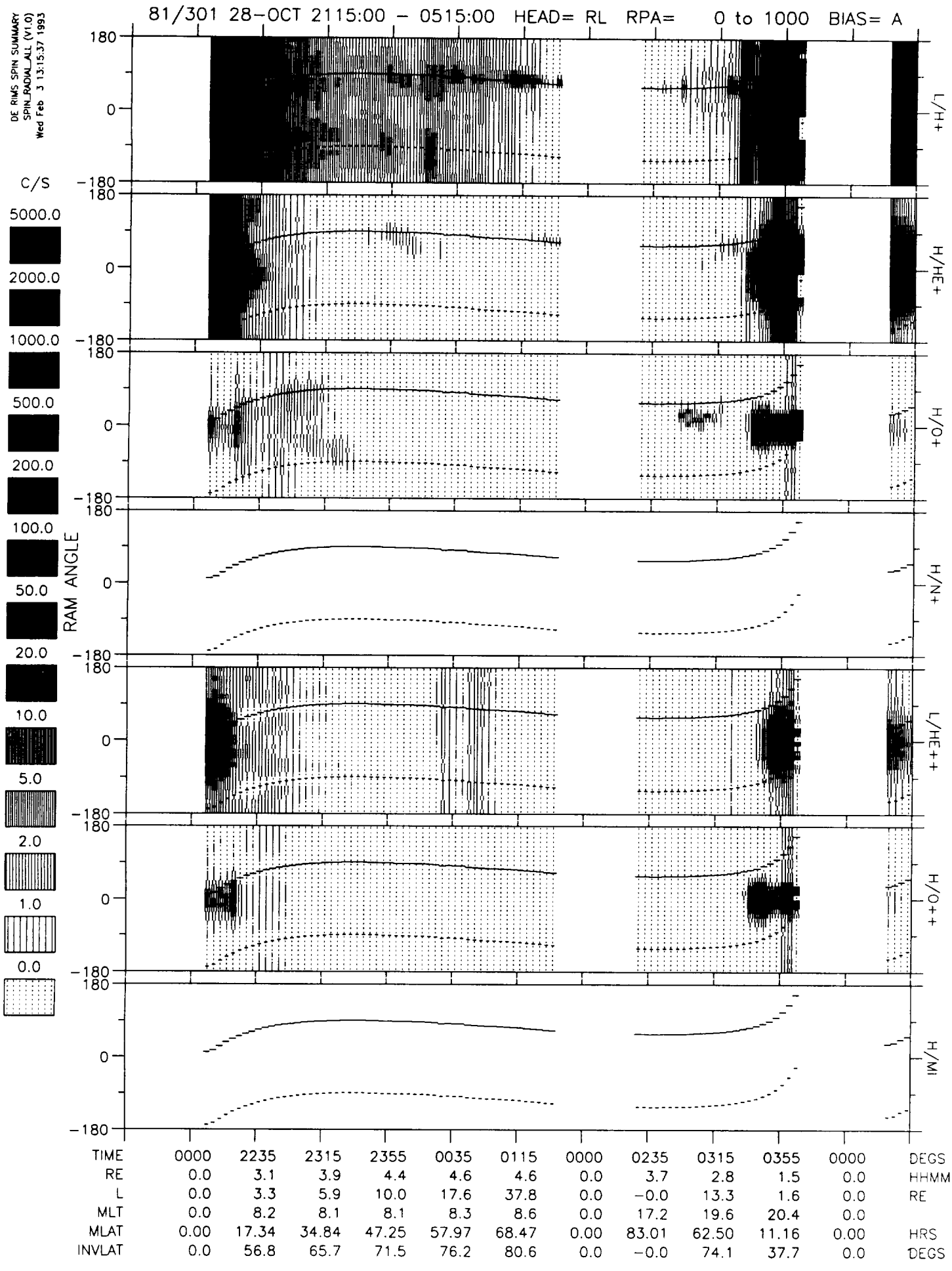

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 13:30:21 1993
81/300 27-OCT 1800:00 - 0200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 1840 1920 2000 2040 2120 0000 0000 0000 0000 0040 0000 DEGS
RE 2.2 3.3 4.0 4.5 4.7 0.0 0.0 0.0 2.6 1.3 0.0 HHMM
L 2.1 4.3 7.9 13.8 25.2 0.0 0.0 0.0 8.8 1.4 0.0 RE
MLT 8.5 8.1 7.7 7.5 7.2 0.0 0.0 0.0 20.6 20.4 0.0
MLAT 1.65 30.12 44.55 54.77 63.62 0.00 0.00 0.00 58.31 -6.04 0.00 HRS
INVLAT 46.7 61.2 69.2 74.4 78.5 0.0 0.0 0.0 70.3 31.6 0.0 DEGS

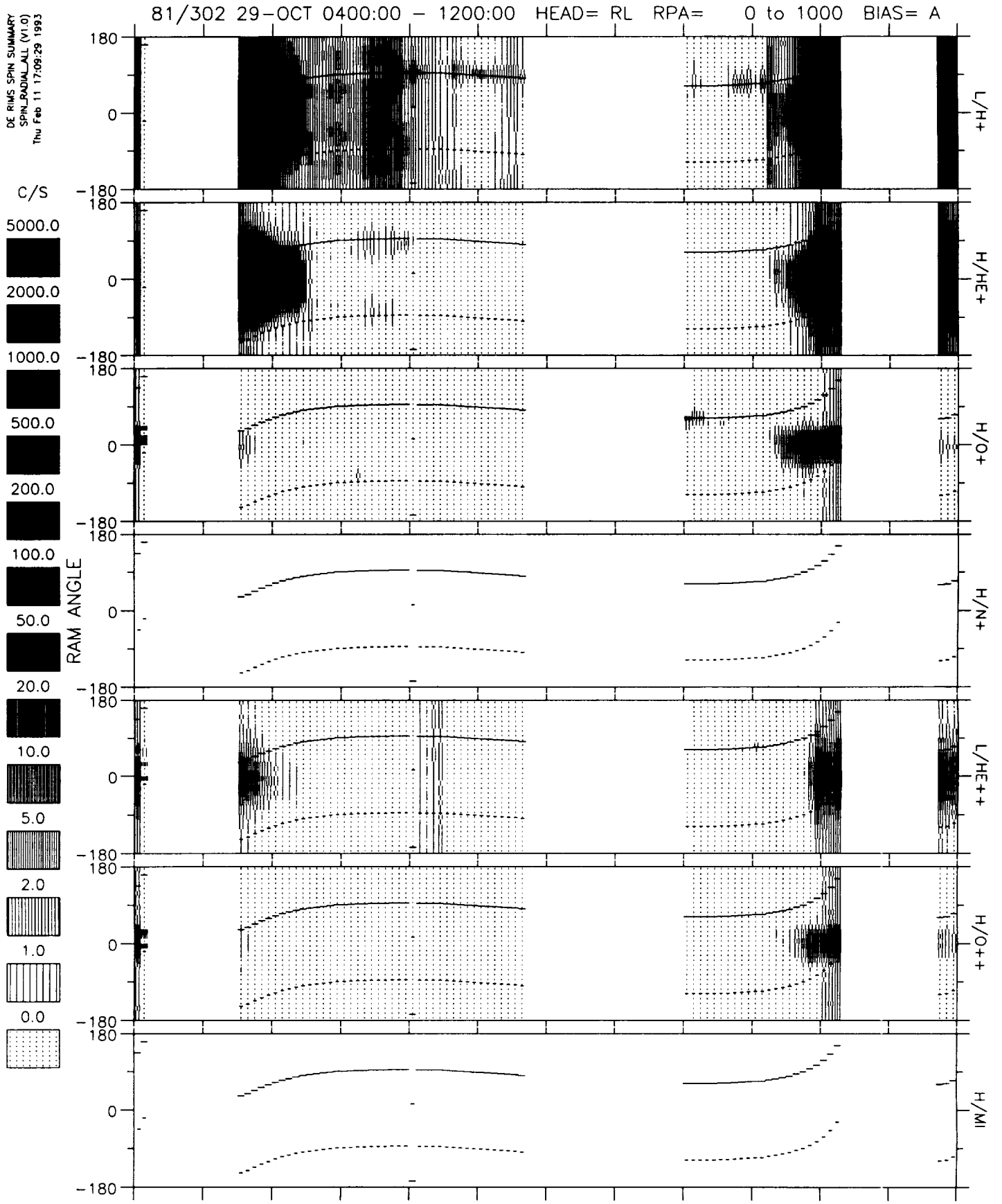


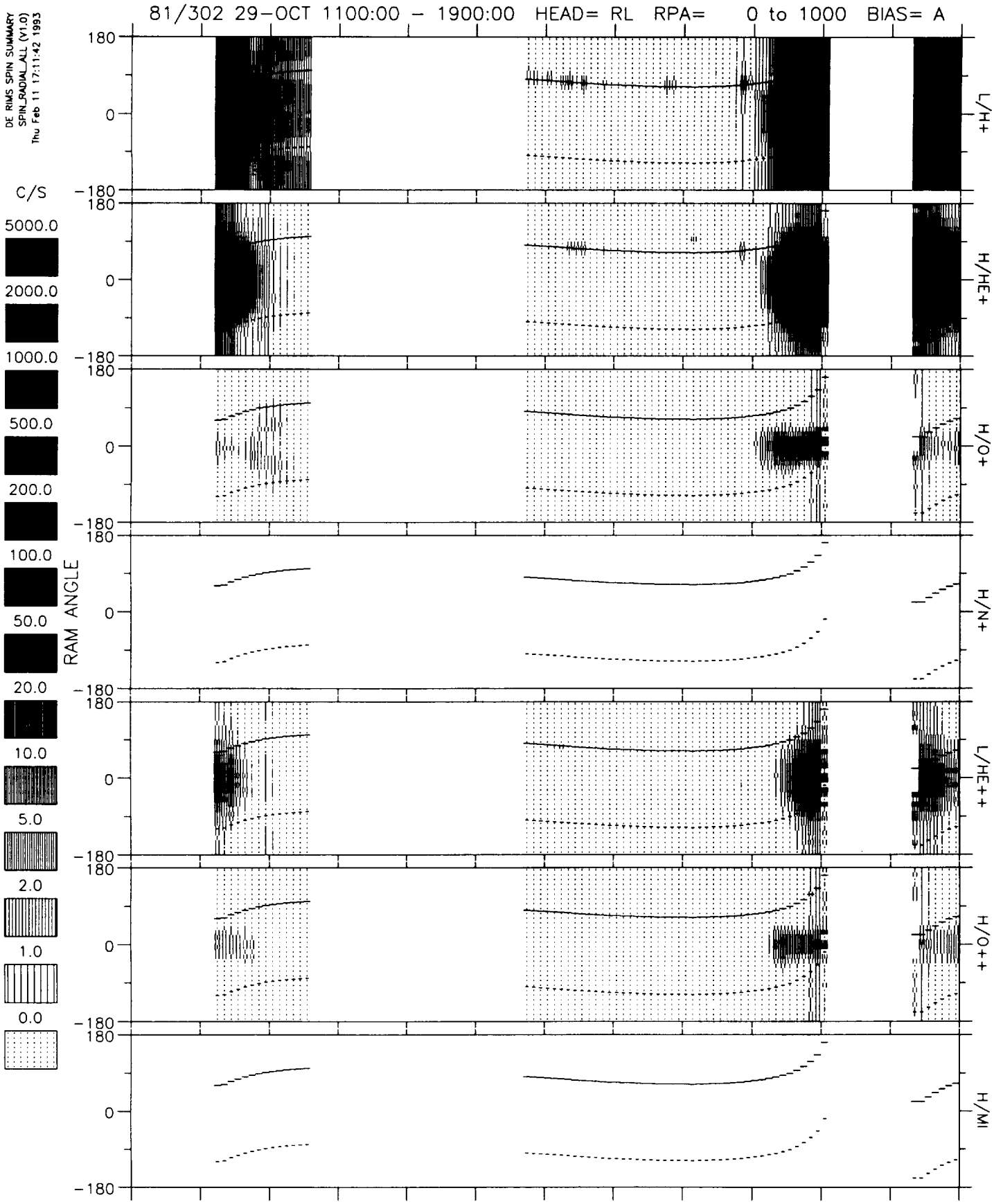
TIME	0155	0235	0315	0355	0435	0000	0000	0635	0715	0000	0835	DEGS
RE	2.9	3.8	4.3	4.6	4.6	0.0	0.0	3.0	1.8	0.0	2.6	HHMM
L	3.0	5.4	9.5	17.7	40.0	0.0	0.0	10.7	2.0	0.0	2.8	RE
MLT	8.5	8.7	9.0	9.5	10.4	0.0	0.0	19.5	20.5	0.0	9.0	
MLAT	11.48	32.39	46.73	58.63	69.41	0.00	0.00	57.68	18.63	0.00	18.91	HRS
INVLAT	54.6	64.5	71.1	76.3	80.9	0.0	0.0	72.2	44.9	0.0	53.5	DEGS

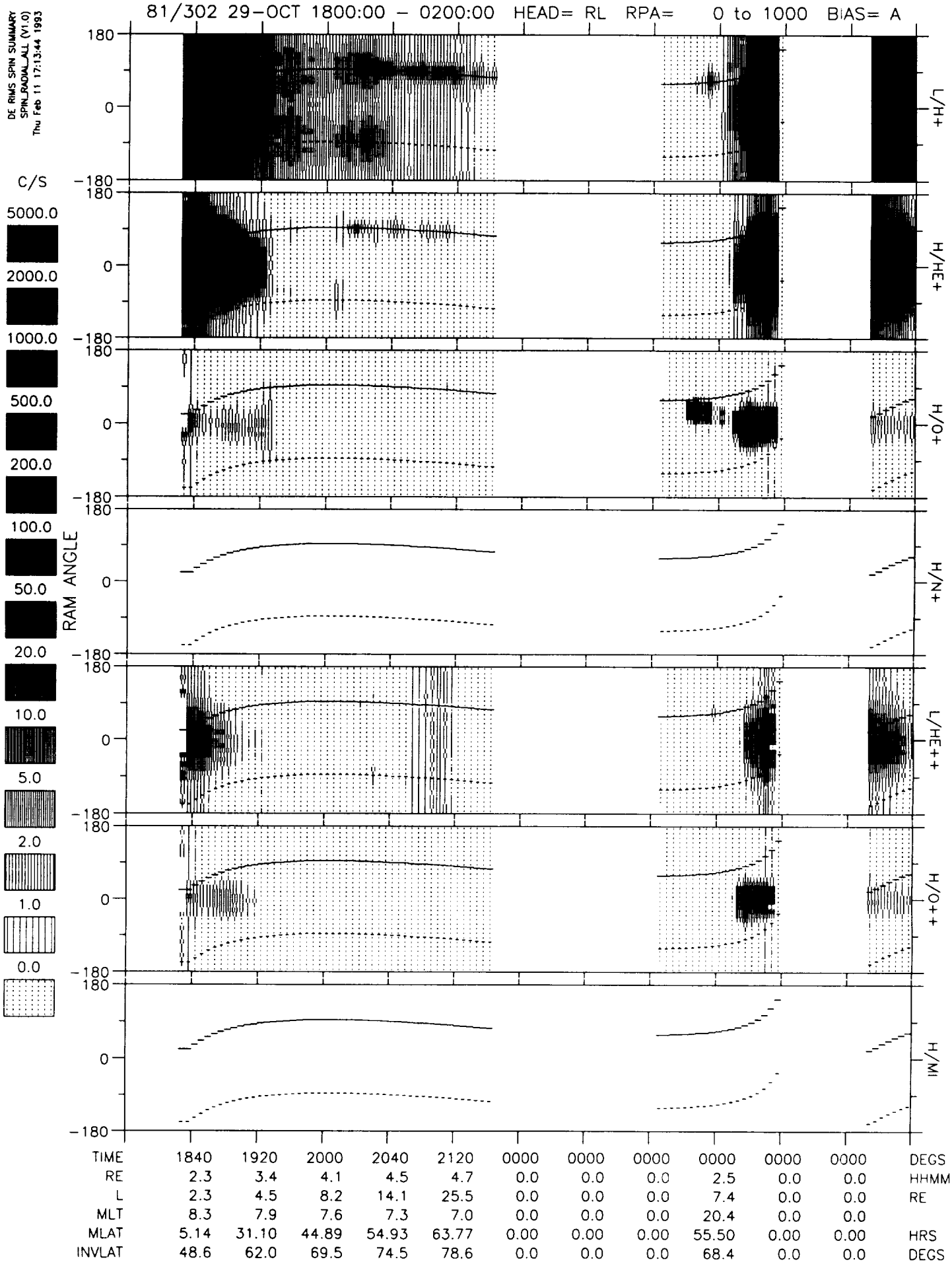

81/301 28-OCT 0730:00 - 1530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 13:24:49 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 1250 1330 1410 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.8 2.9 1.8 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 23.1 6.2 1.8 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 20.6 20.8 20.7 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 64.74 44.90 7.21 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 78.0 66.3 41.3 0.0 DEGS

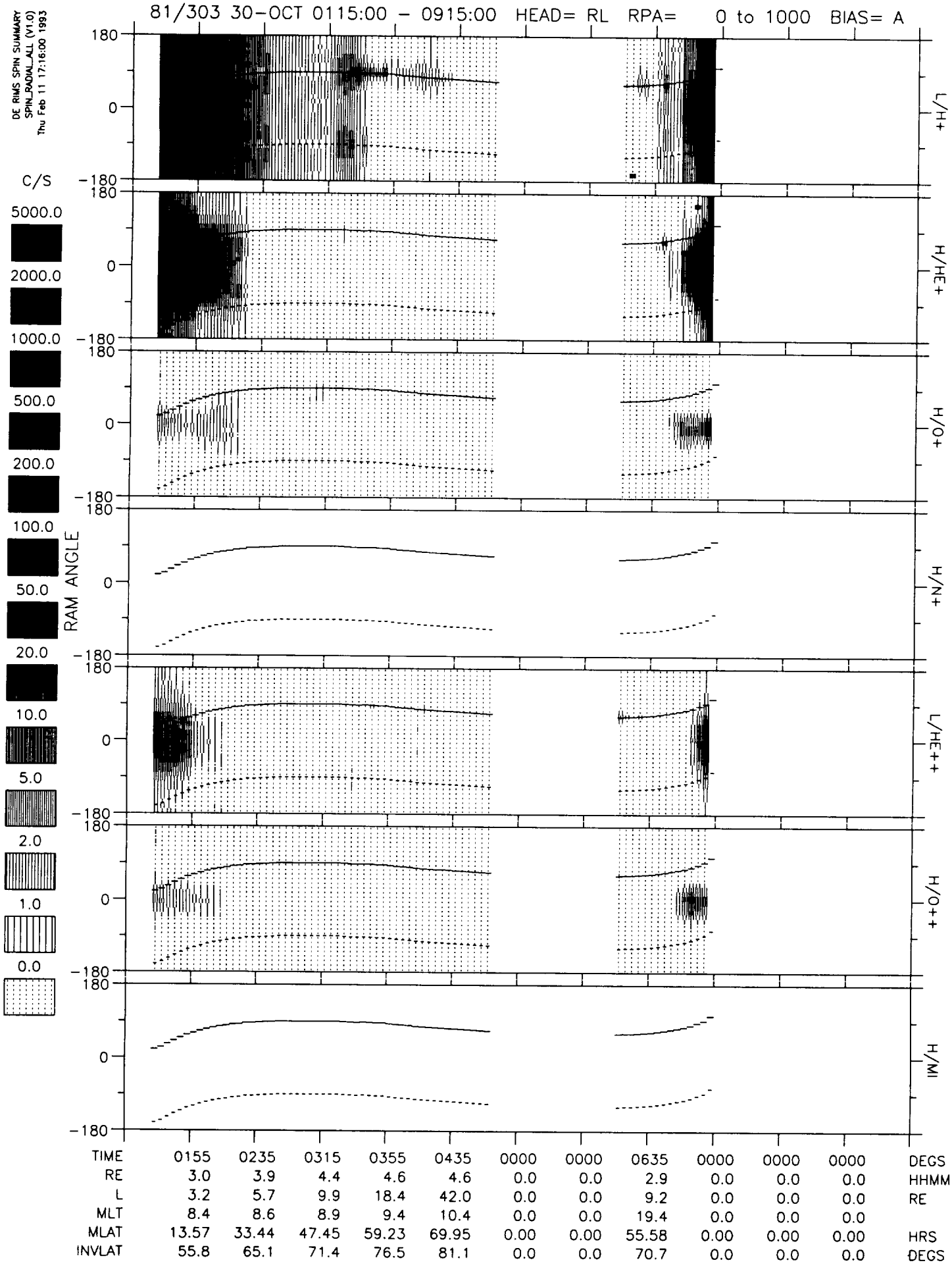

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 13:22:53 1993
81/301 28-OCT 1430:00 - 2230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1510 1550 0000 0000 0000 0000 0000 1950 2030 0000 0000 DEGS
RE 2.1 3.2 0.0 0.0 0.0 0.0 0.0 3.6 2.7 0.0 0.0 HHMM
L 2.1 5.2 0.0 0.0 0.0 0.0 0.0 35.5 6.7 0.0 0.0 RE
MLT 8.6 8.2 0.0 0.0 0.0 0.0 0.0 22.9 21.3 0.0 0.0
MLAT 6.74 38.13 0.00 0.00 0.00 0.00 0.00 71.89 53.24 0.00 0.00 HRS
INVLAT 46.5 64.0 0.0 0.0 0.0 0.0 0.0 80.3 67.3 0.0 0.0 DEGS

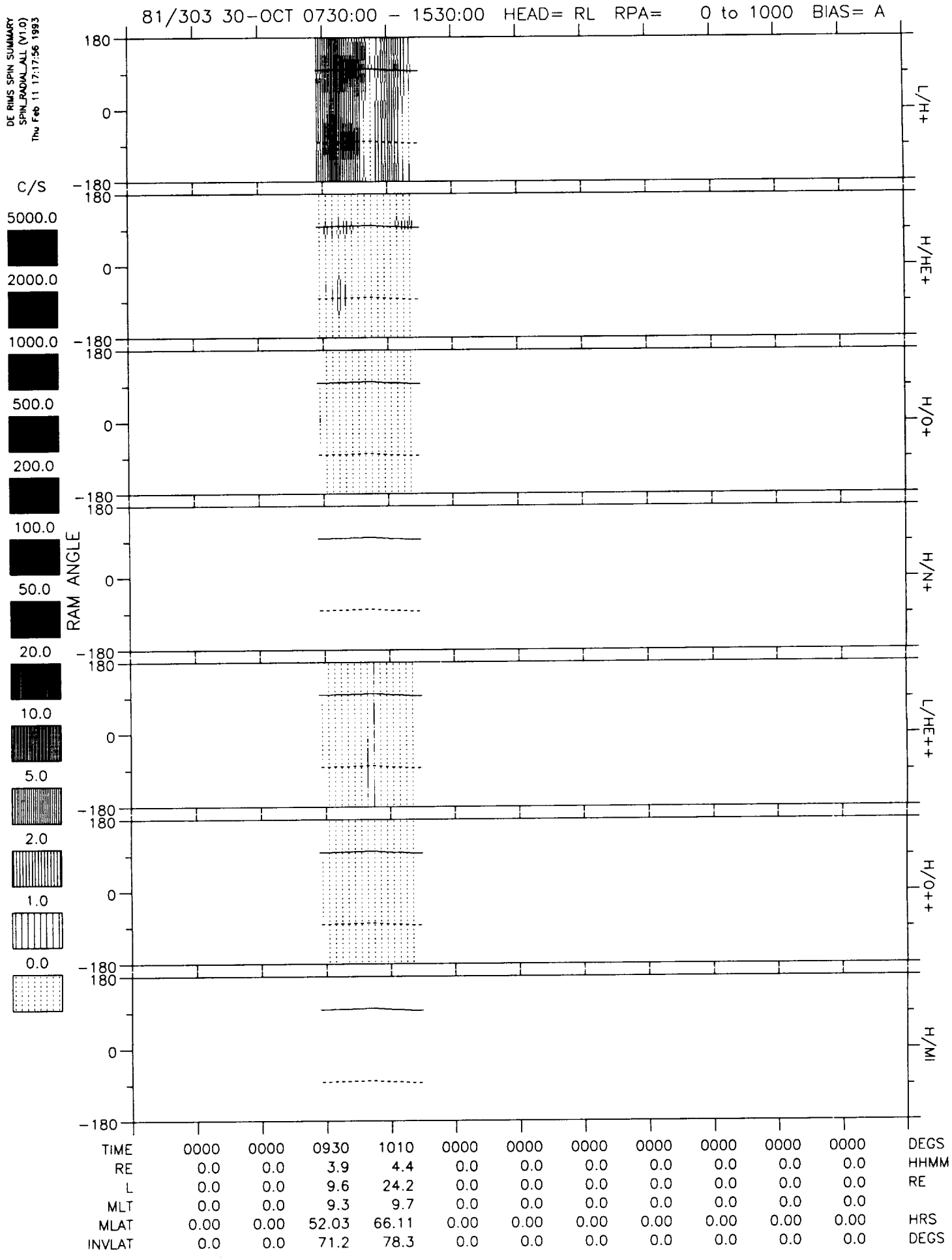

81/301 28-OCT 2115:00 - 0515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 3 13:15:37 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 2235 2315 2355 0035 0115 0000 0235 0315 0355 0000 DEGS
RE 0.0 3.1 3.9 4.4 4.6 4.6 0.0 3.7 2.8 1.5 0.0 HHMM
L 0.0 3.3 5.9 10.0 17.6 37.8 0.0 -0.0 13.3 1.6 0.0 RE
MLT 0.0 8.2 8.1 8.1 8.3 8.6 0.0 17.2 19.6 20.4 0.0
MLAT 0.00 17.34 34.84 47.25 57.97 68.47 0.00 83.01 62.50 11.16 0.00 HRS
INVLAT 0.0 56.8 65.7 71.5 76.2 80.6 0.0 -0.0 74.1 37.7 0.0 DEGS

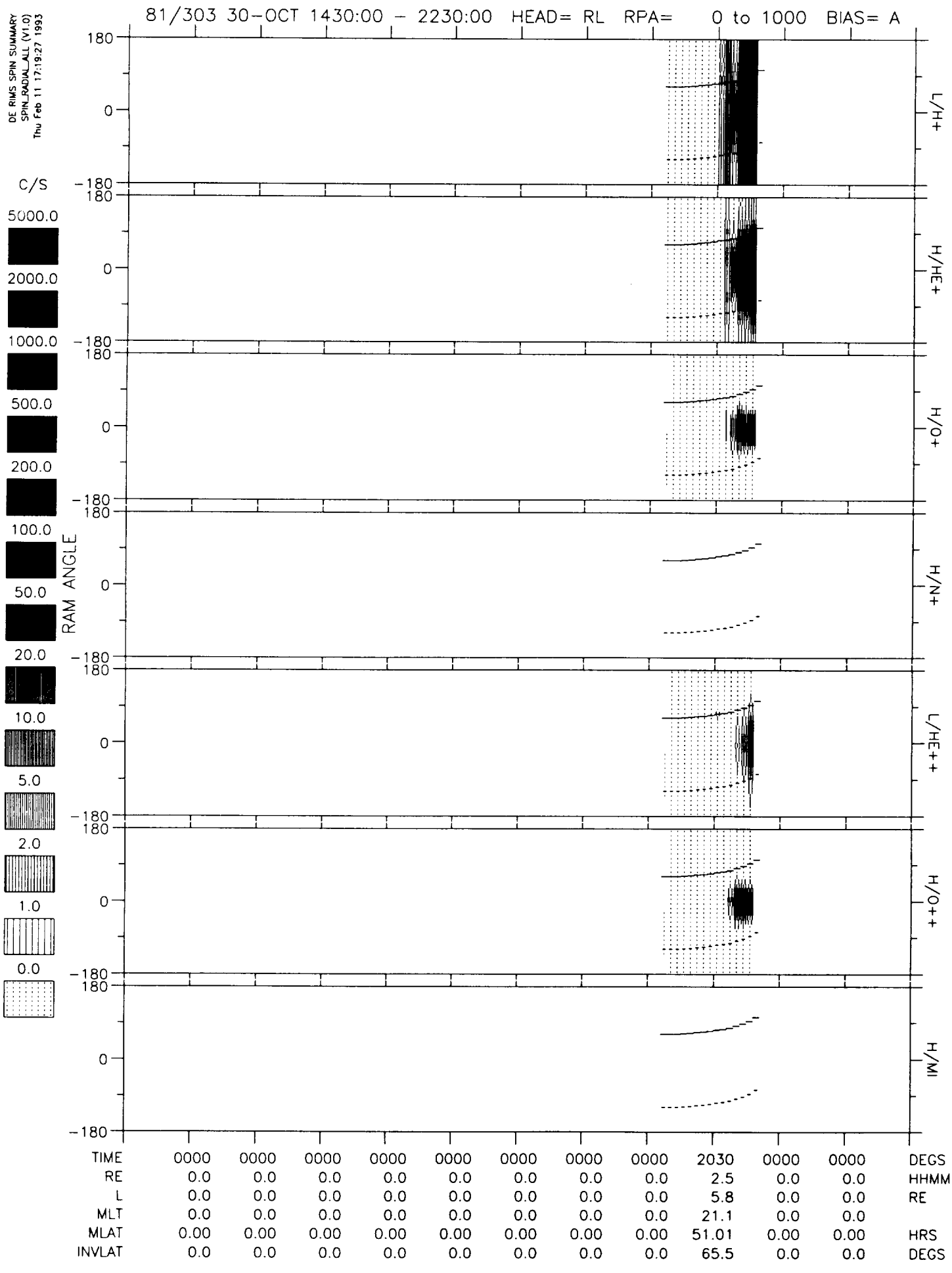

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:09:29 1993
81/302 29-OCT 0400:00 - 1200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0520 0600 0640 0720 0000 0000 0920 1000 1040 0000 DEGS
RE 0.0 2.9 3.8 4.4 4.6 0.0 0.0 3.9 3.0 1.7 0.0 HHMM
L 0.0 3.2 6.3 12.5 27.9 0.0 0.0 31.6 7.2 1.7 0.0 RE
MLT 0.0 8.9 9.3 9.8 10.6 0.0 0.0 19.1 20.0 20.6 0.0
MLAT 0.00 18.51 39.73 54.48 66.50 0.00 0.00 68.40 48.94 6.08 0.00 HRS
INVLAT 0.0 56.2 66.6 73.6 79.1 0.0 0.0 79.8 68.1 40.2 0.0 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:11:42 1993
81/302 29-OCT 1100:00 - 1900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1220 0000 0000 0000 1500 1540 1620 1700 1740 0000 DEGS
RE 0.0 3.2 0.0 0.0 0.0 4.6 4.3 3.7 2.7 1.5 0.0 HHMM
L 0.0 5.4 0.0 0.0 0.0 100.0 100.0 22.5 5.7 1.5 0.0 RE
MLT 0.0 8.7 0.0 0.0 0.0 2.4 23.0 21.9 21.2 20.4 0.0
MLAT 0.00 40.01 0.00 0.00 0.00 83.88 77.14 65.37 45.80 -5.00 0.00 HRS
INVLAT 0.0 64.5 0.0 0.0 0.0 87.6 84.3 77.8 65.2 35.4 0.0 DEGS

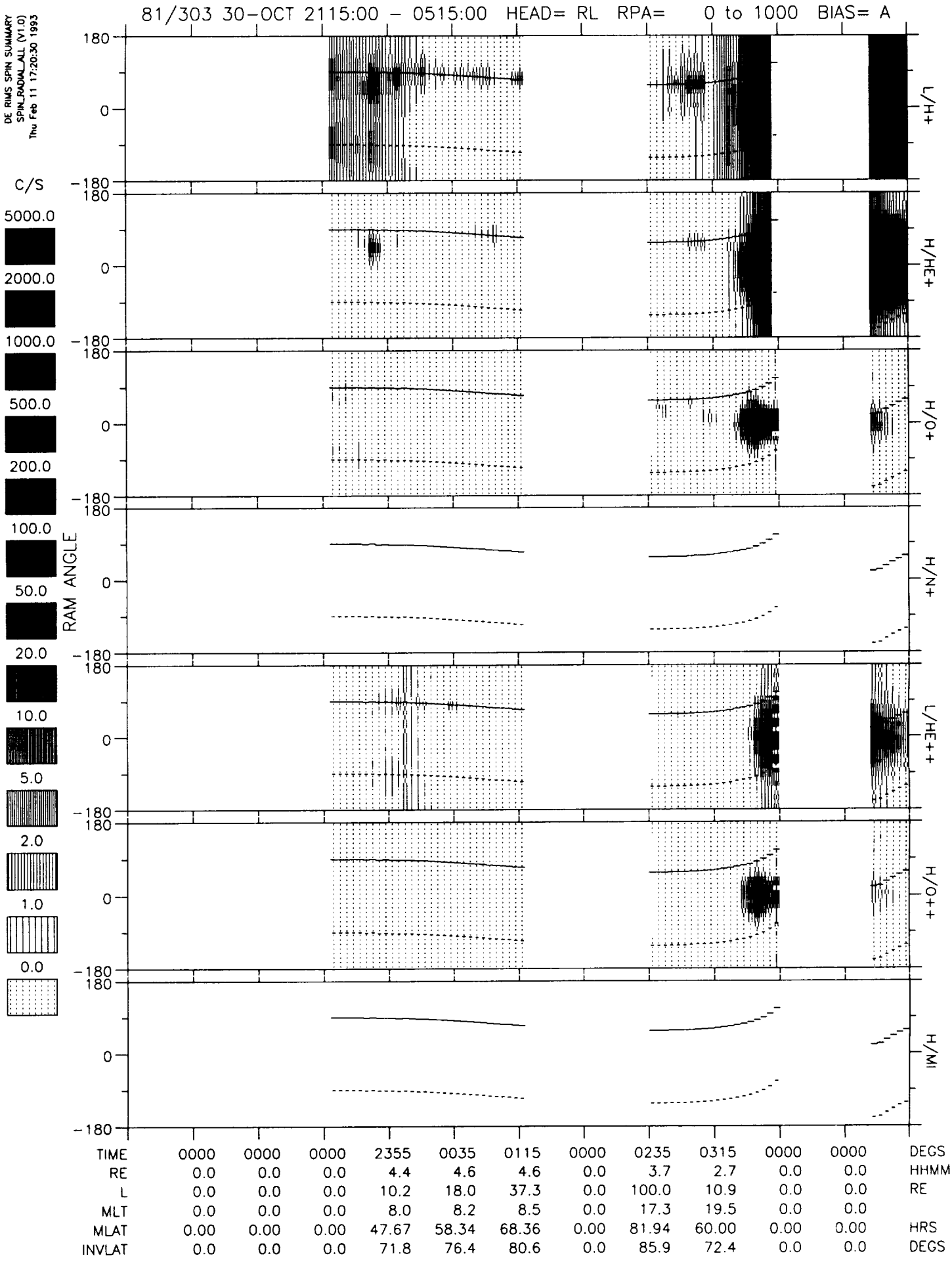

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:13:44 1993
81/302 29-OCT 1800:00 - 0200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1840 1920 2000 2040 2120 0000 0000 0000 0000 0000 0000 DEGS
RE 2.3 3.4 4.1 4.5 4.7 0.0 0.0 0.0 2.5 0.0 0.0 HHMM
L 2.3 4.5 8.2 14.1 25.5 0.0 0.0 0.0 7.4 0.0 0.0 RE
MLT 8.3 7.9 7.6 7.3 7.0 0.0 0.0 0.0 20.4 0.0 0.0
MLAT 5.14 31.10 44.89 54.93 63.77 0.00 0.00 0.00 55.50 0.00 0.00 HRS
INVLAT 48.6 62.0 69.5 74.5 78.6 0.0 0.0 0.0 68.4 0.0 0.0 DEGS

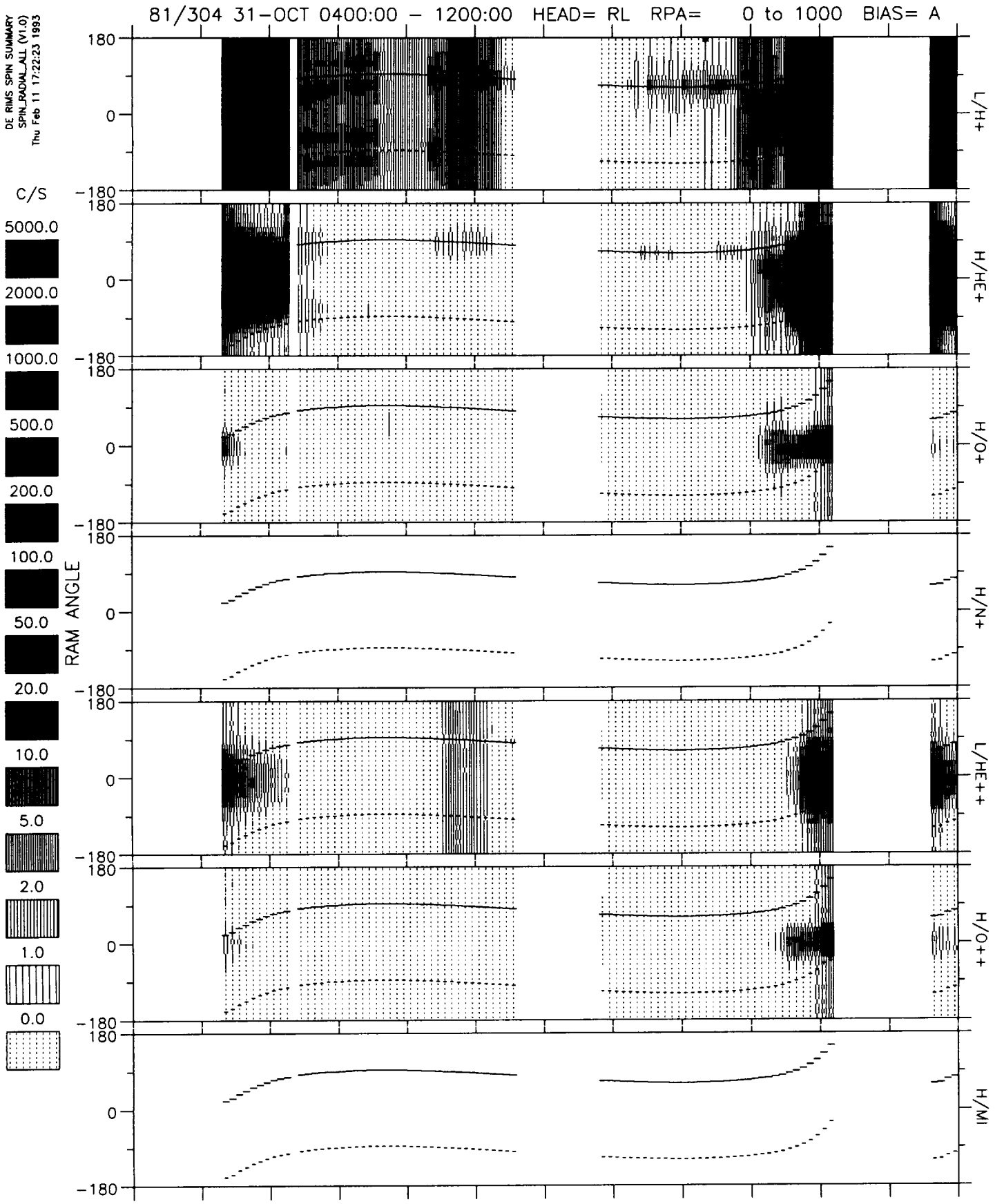

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:16:00 1993
81/303 30-OCT 0115:00 - 0915:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0155 0235 0315 0355 0435 0000 0000 0635 0000 0000 0000 DEGS
RE 3.0 3.9 4.4 4.6 4.6 0.0 0.0 2.9 0.0 0.0 0.0 HHMM
L 3.2 5.7 9.9 18.4 42.0 0.0 0.0 9.2 0.0 0.0 0.0 RE
MLT 8.4 8.6 8.9 9.4 10.4 0.0 0.0 19.4 0.0 0.0 0.0
MLAT 13.57 33.44 47.45 59.23 69.95 0.00 0.00 55.58 0.00 0.00 0.00 HRS
INVLAT 55.8 65.1 71.4 76.5 81.1 0.0 0.0 70.7 0.0 0.0 0.0 DEGS

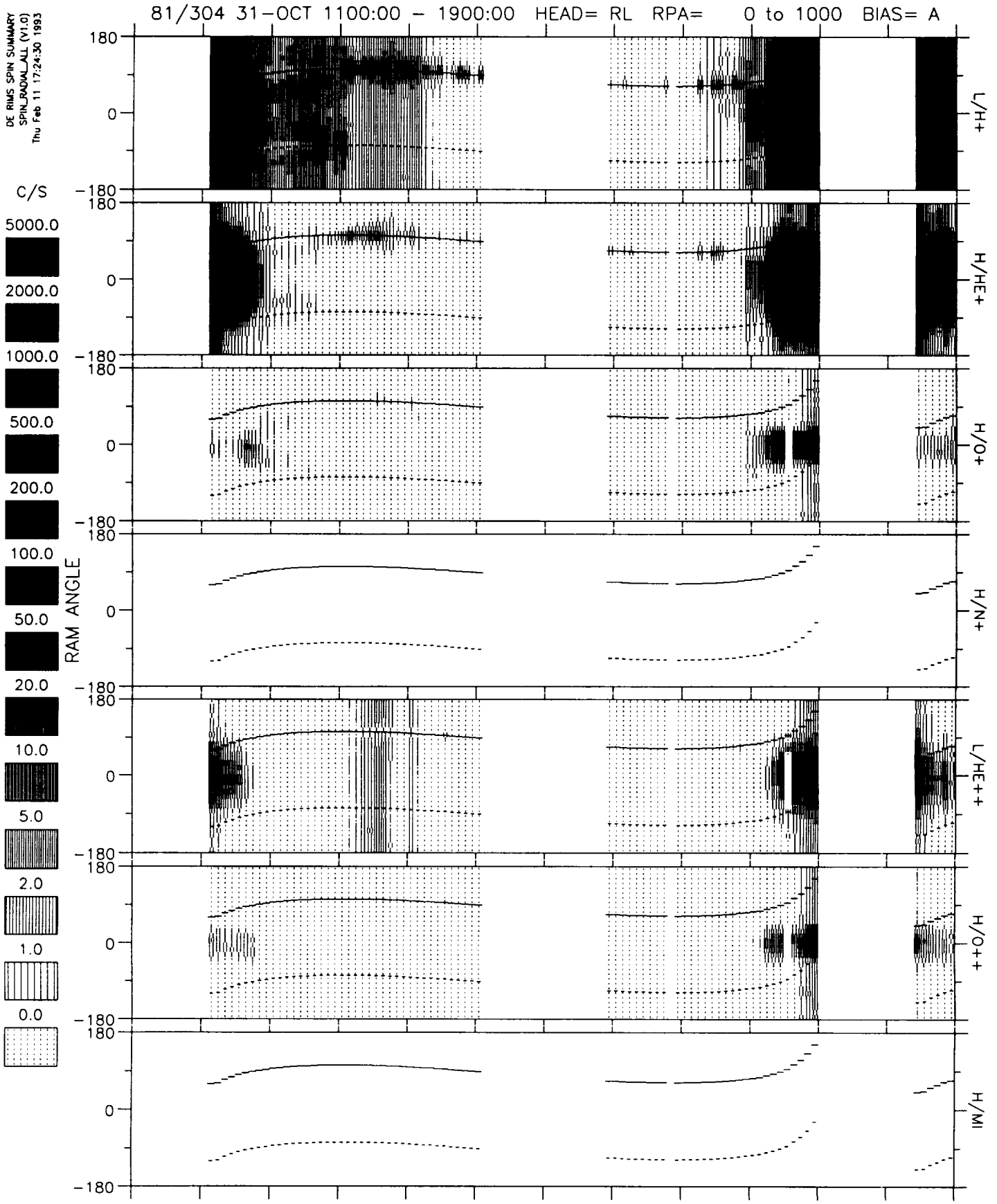

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:17:56 1993
81/303 30-OCT 0730:00 - 1530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0930 1010 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 0.0 3.9 4.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 9.6 24.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 9.3 9.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 52.03 66.11 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 71.2 78.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

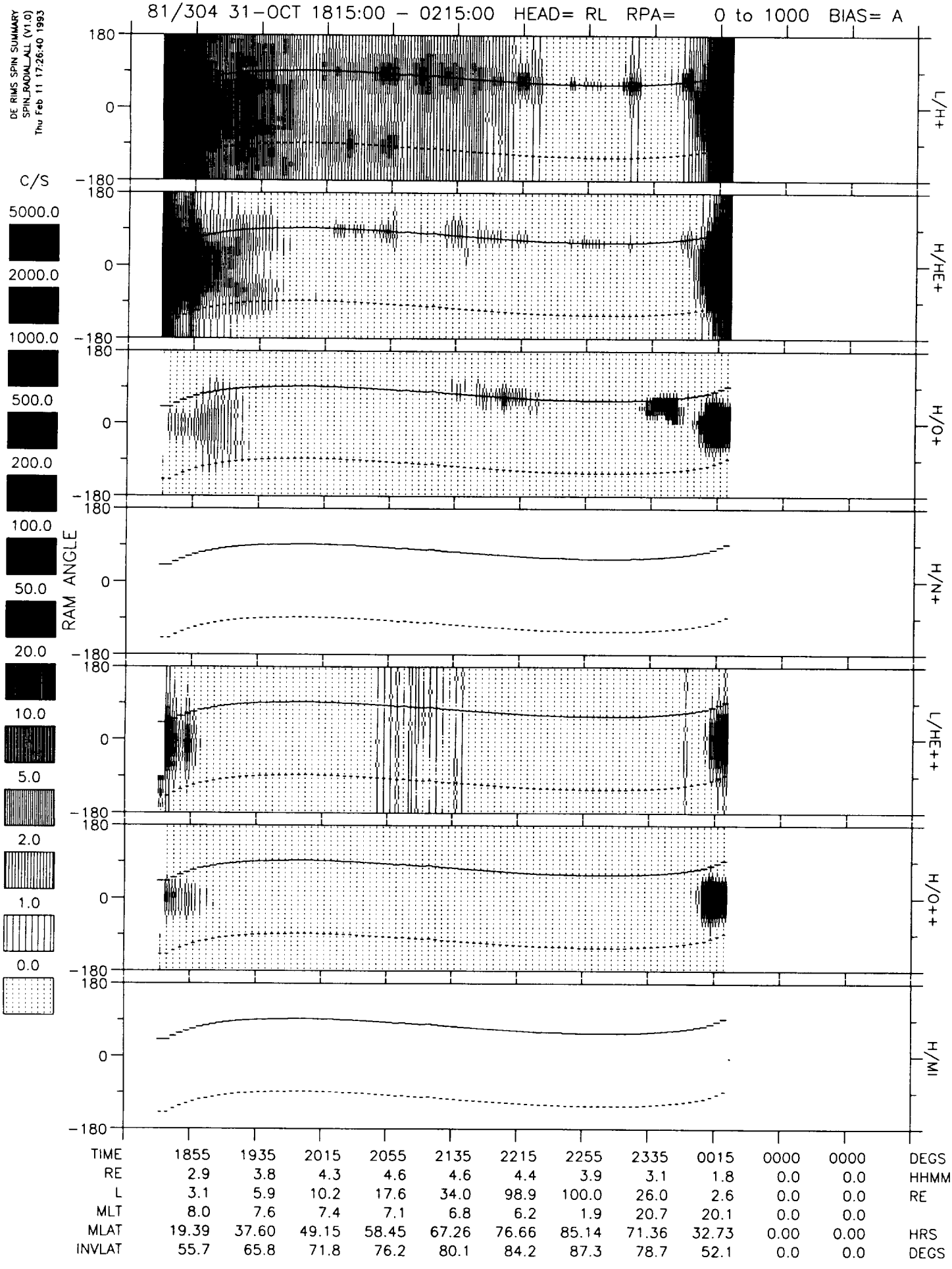

81/303 30-OCT 1430:00 - 2230:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:19:27 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 2030 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.5 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.8 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 21.1 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 51.01 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 65.5 0.0 0.0 DEGS

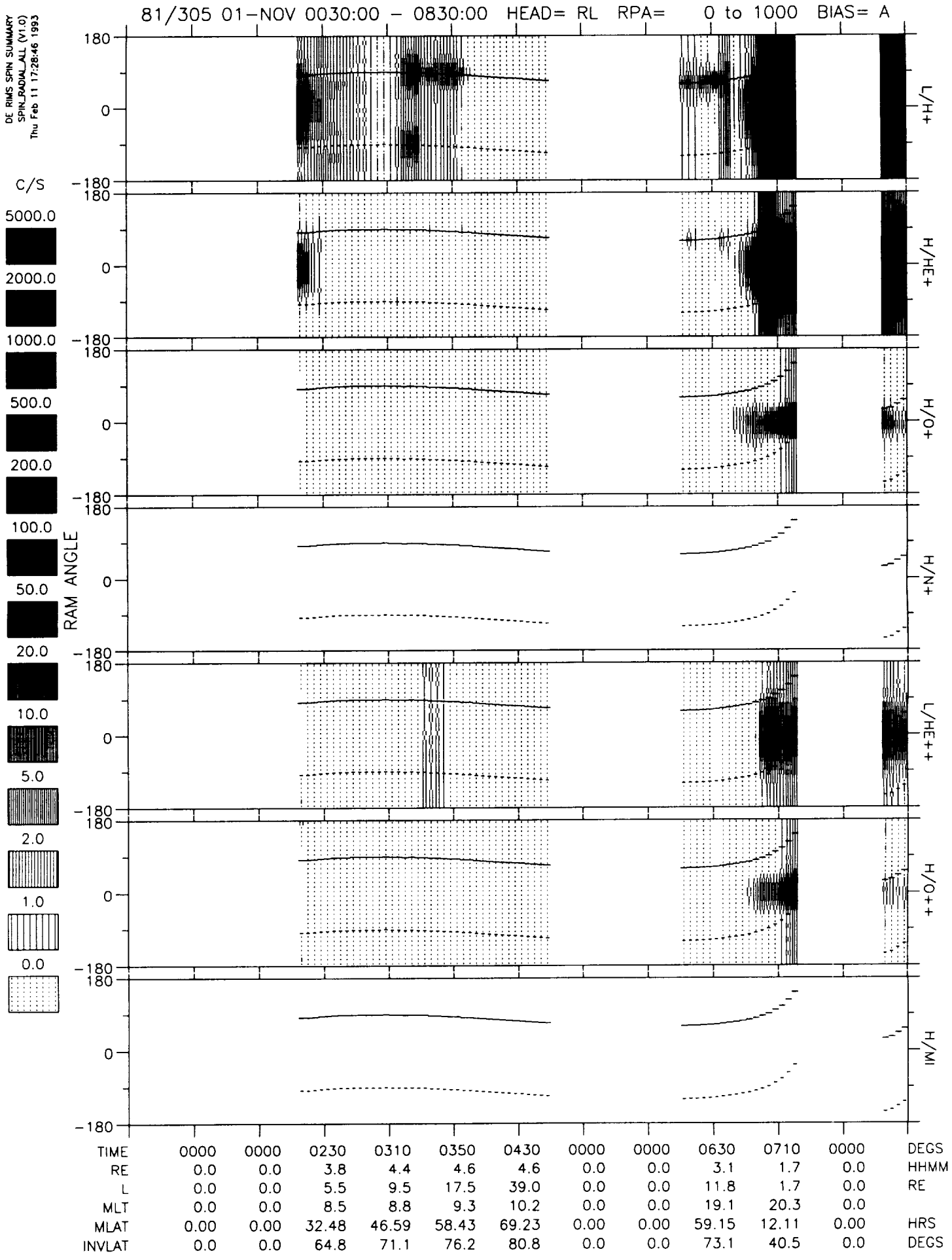
C-2.

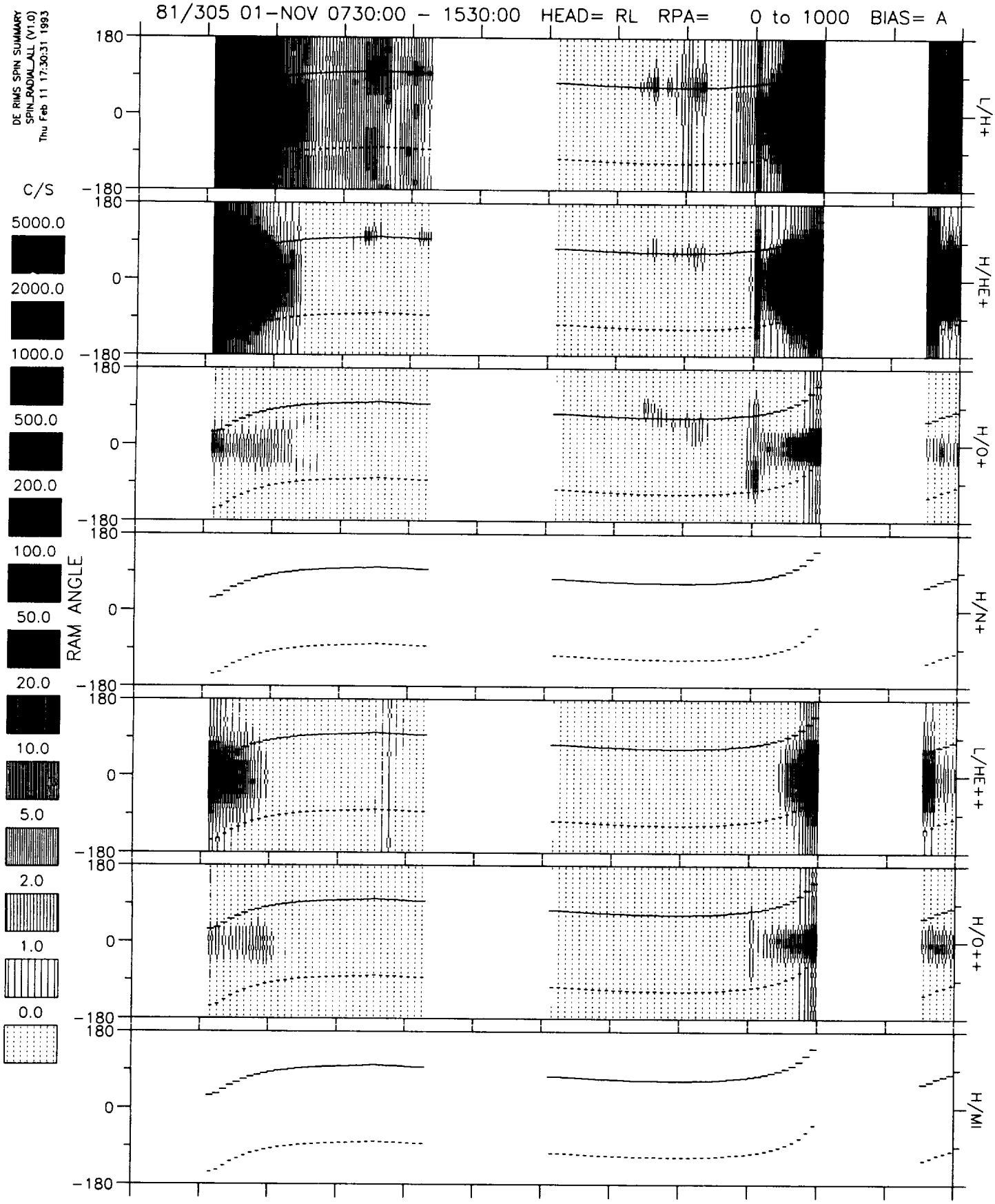

81/303 30-OCT 2115:00 - 0515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:20:30 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0000 0000 0000 2355 0035 0115 0000 0235 0315 0000 0000 DEGS
RE 0.0 0.0 0.0 4.4 4.6 4.6 0.0 3.7 2.7 0.0 0.0 HHMM
L 0.0 0.0 0.0 10.2 18.0 37.3 0.0 100.0 10.9 0.0 0.0 RE
MLT 0.0 0.0 0.0 8.0 8.2 8.5 0.0 17.3 19.5 0.0 0.0
MLAT 0.00 0.00 0.00 47.67 58.34 68.36 0.00 81.94 60.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 71.8 76.4 80.6 0.0 85.9 72.4 0.0 0.0 DEGS

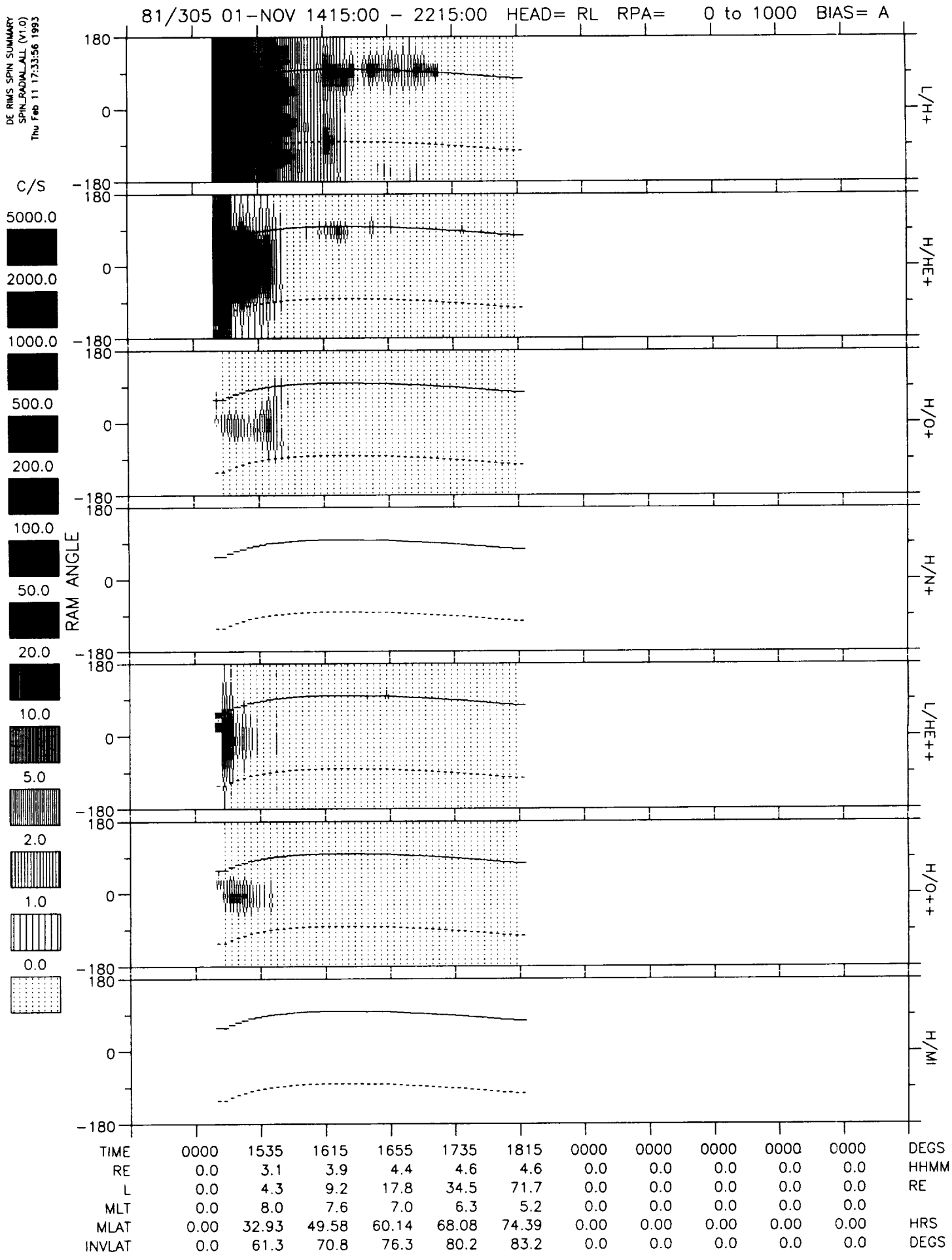

81/304 31-OCT 0400:00 - 1200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:22:23 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0520 0600 0640 0720 0000 0840 0920 1000 1040 0000 DEGS
RE 0.0 3.0 3.9 4.4 4.6 0.0 4.3 3.8 2.9 1.6 0.0 HHMM
L 0.0 3.4 6.7 13.1 29.5 0.0 -0.0 28.3 6.3 1.5 0.0 RE
MLT 0.0 8.8 9.2 9.7 10.5 0.0 16.6 19.1 20.0 20.5 0.0
MLAT 0.00 20.74 40.96 55.35 67.22 0.00 78.55 67.39 46.79 -1.57 0.00 HRS
INVLAT 0.0 57.4 67.2 74.0 79.4 0.0 -0.0 79.2 66.6 36.2 0.0 DEGS

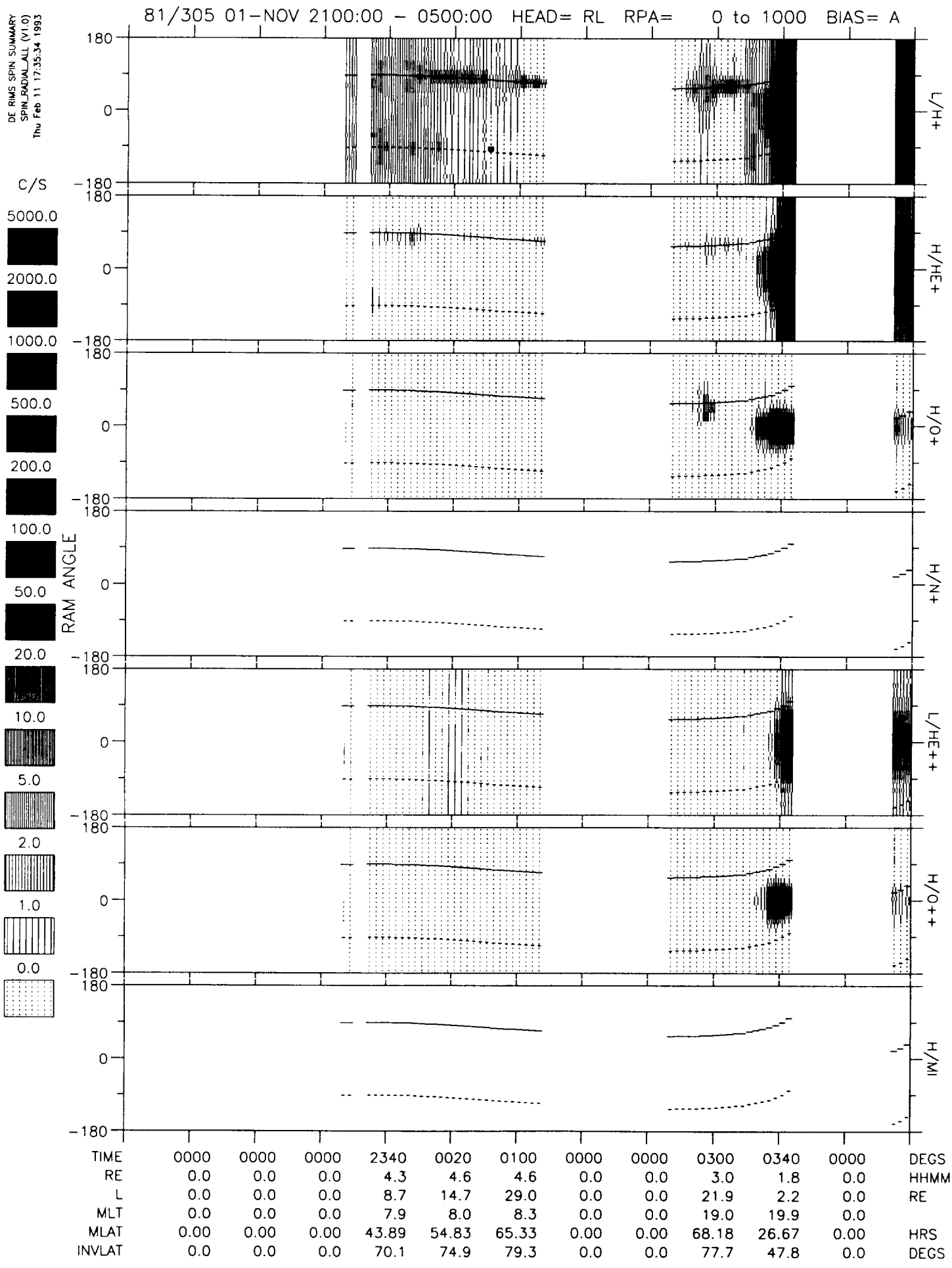

81/304 31-OCT 1100:00 - 1900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:24:30 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1220 1300 1340 1420 0000 1540 1620 1700 0000 0000 DEGS
RE 0.0 3.3 4.0 4.5 4.7 0.0 4.2 3.6 2.6 0.0 0.0 HHMM
L 0.0 5.8 14.5 38.7 100.0 0.0 93.9 20.6 5.0 0.0 0.0 RE
MLT 0.0 8.5 8.3 7.9 6.7 0.0 22.9 21.8 21.0 0.0 0.0
MLAT 0.00 41.61 58.60 70.52 79.28 0.00 76.69 64.57 43.61 0.00 0.00 HRS
INVLAT 0.0 65.5 74.8 80.8 85.0 0.0 84.1 77.3 63.4 0.0 0.0 DEGS

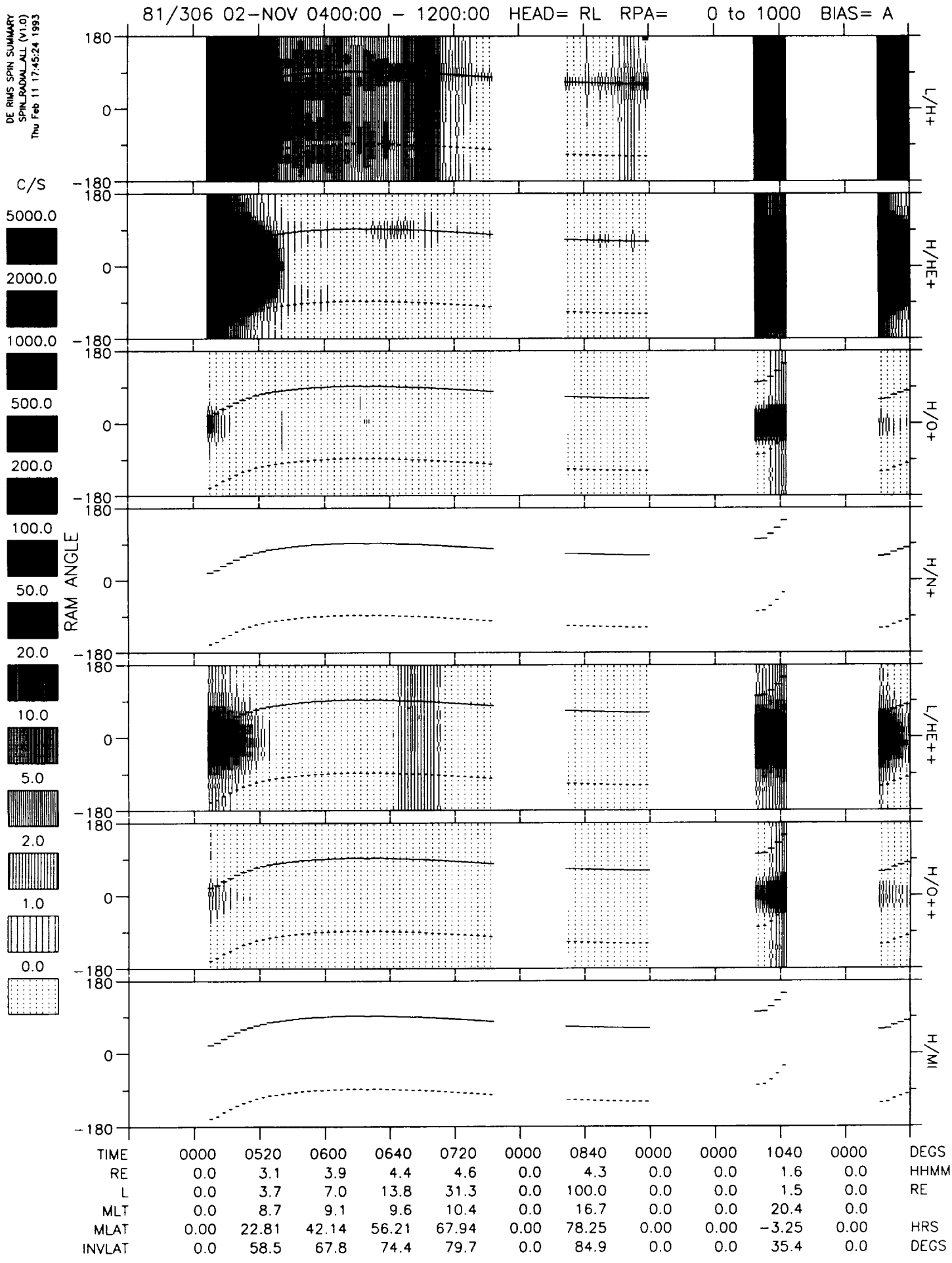

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:26:40 1993
81/304 31-OCT 1815:00 - 0215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1855 1935 2015 2055 2135 2215 2255 2335 0015 0000 0000 DEGS
RE 2.9 3.8 4.3 4.6 4.6 4.4 3.9 3.1 1.8 0.0 0.0 HHMM
L 3.1 5.9 10.2 17.6 34.0 98.9 100.0 26.0 2.6 0.0 0.0 RE
MLT 8.0 7.6 7.4 7.1 6.8 6.2 1.9 20.7 20.1 0.0 0.0
MLAT 19.39 37.60 49.15 58.45 67.26 76.66 85.14 71.36 32.73 0.00 0.00 HRS
INVLAT 55.7 65.8 71.8 76.2 80.1 84.2 87.3 78.7 52.1 0.0 0.0 DEGS

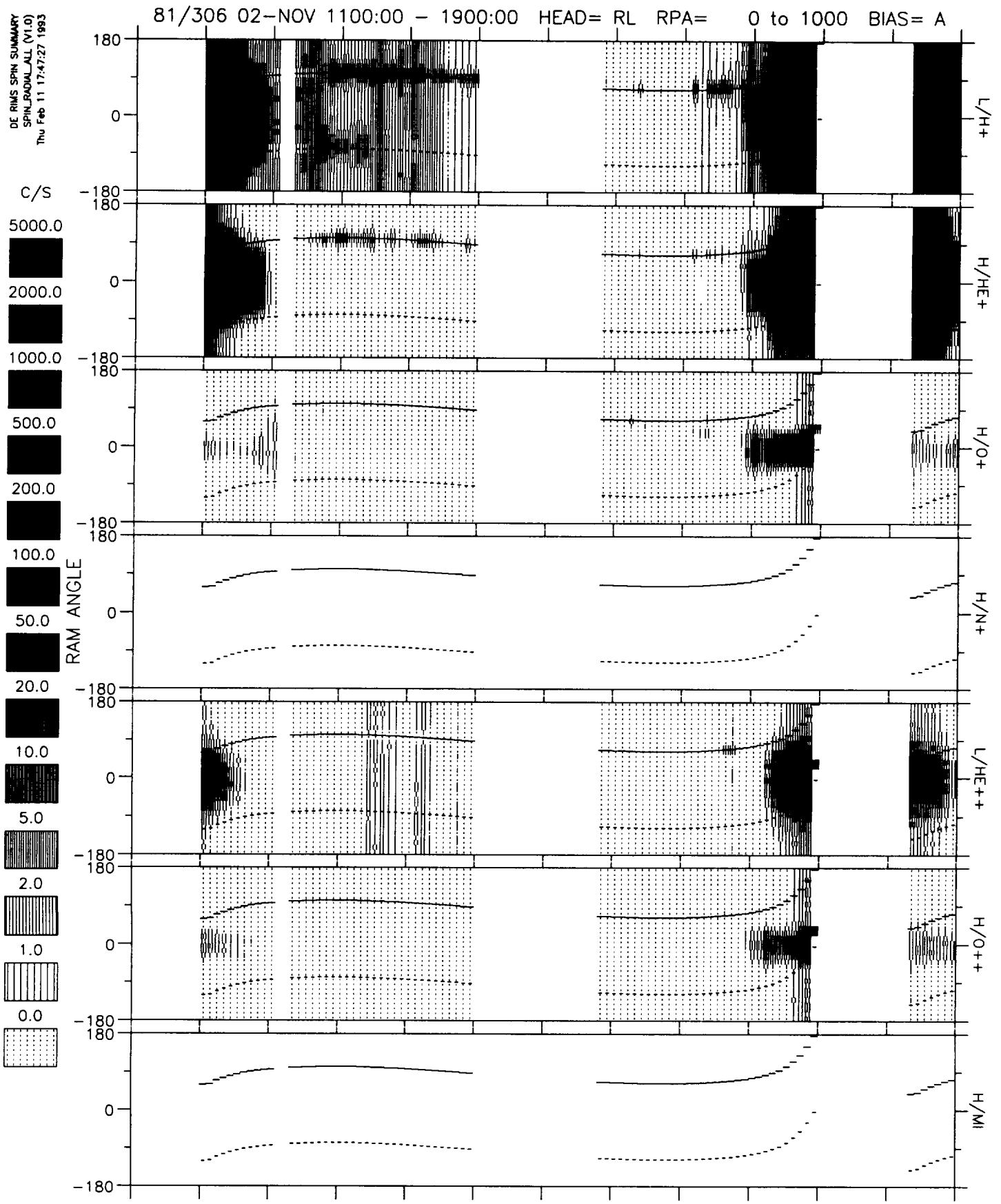

81/305 01-NOV 0030:00 - 0830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:28:46 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0230 0310 0350 0430 0000 0000 0630 0710 0000 DEGS
RE 0.0 0.0 3.8 4.4 4.6 4.6 0.0 0.0 3.1 1.7 0.0 HHMM
L 0.0 0.0 5.5 9.5 17.5 39.0 0.0 0.0 11.8 1.7 0.0 RE
MLT 0.0 0.0 8.5 8.8 9.3 10.2 0.0 0.0 19.1 20.3 0.0
MLAT 0.00 0.00 32.48 46.59 58.43 69.23 0.00 0.00 59.15 12.11 0.00 HRS
INVLAT 0.0 0.0 64.8 71.1 76.2 80.8 0.0 0.0 73.1 40.5 0.0 DEGS

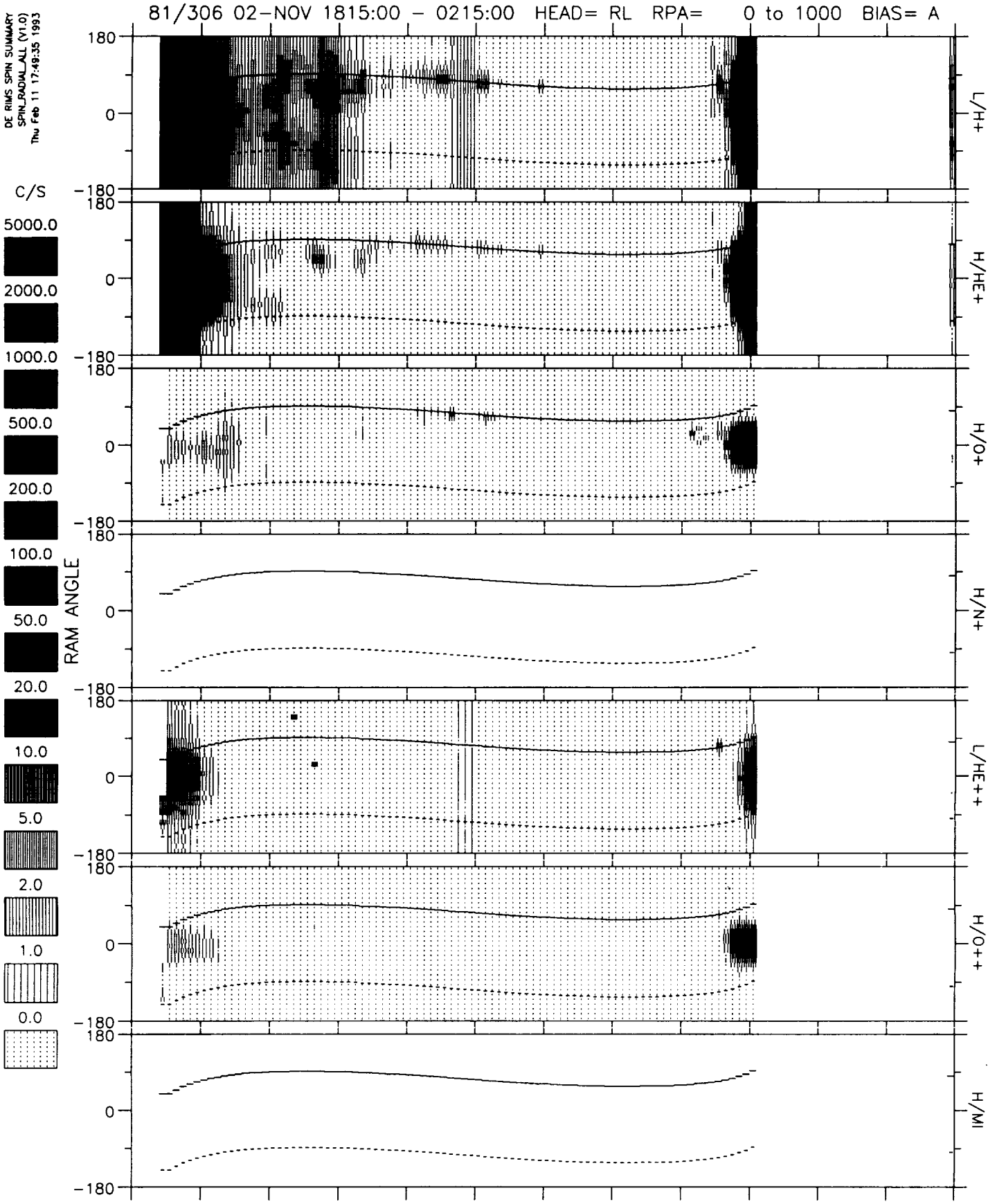

81/305 01-NOV 0730:00 - 1530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:30:31 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0850 0930 1010 0000 0000 1210 1250 1330 0000 0000 DEGS
RE 0.0 3.2 4.0 4.5 0.0 0.0 4.3 3.7 2.7 0.0 0.0 HHMM
L 0.0 4.5 10.3 25.9 0.0 0.0 -0.0 19.1 4.9 0.0 0.0 RE
MLT 0.0 8.9 9.2 9.6 0.0 0.0 20.1 20.5 20.5 0.0 0.0
MLAT 0.00 34.36 53.12 66.89 0.00 0.00 77.07 62.75 40.50 0.00 0.00 HRS
INVLAT 0.0 61.8 71.8 78.7 0.0 0.0 -0.0 76.8 63.1 0.0 0.0 DEGS

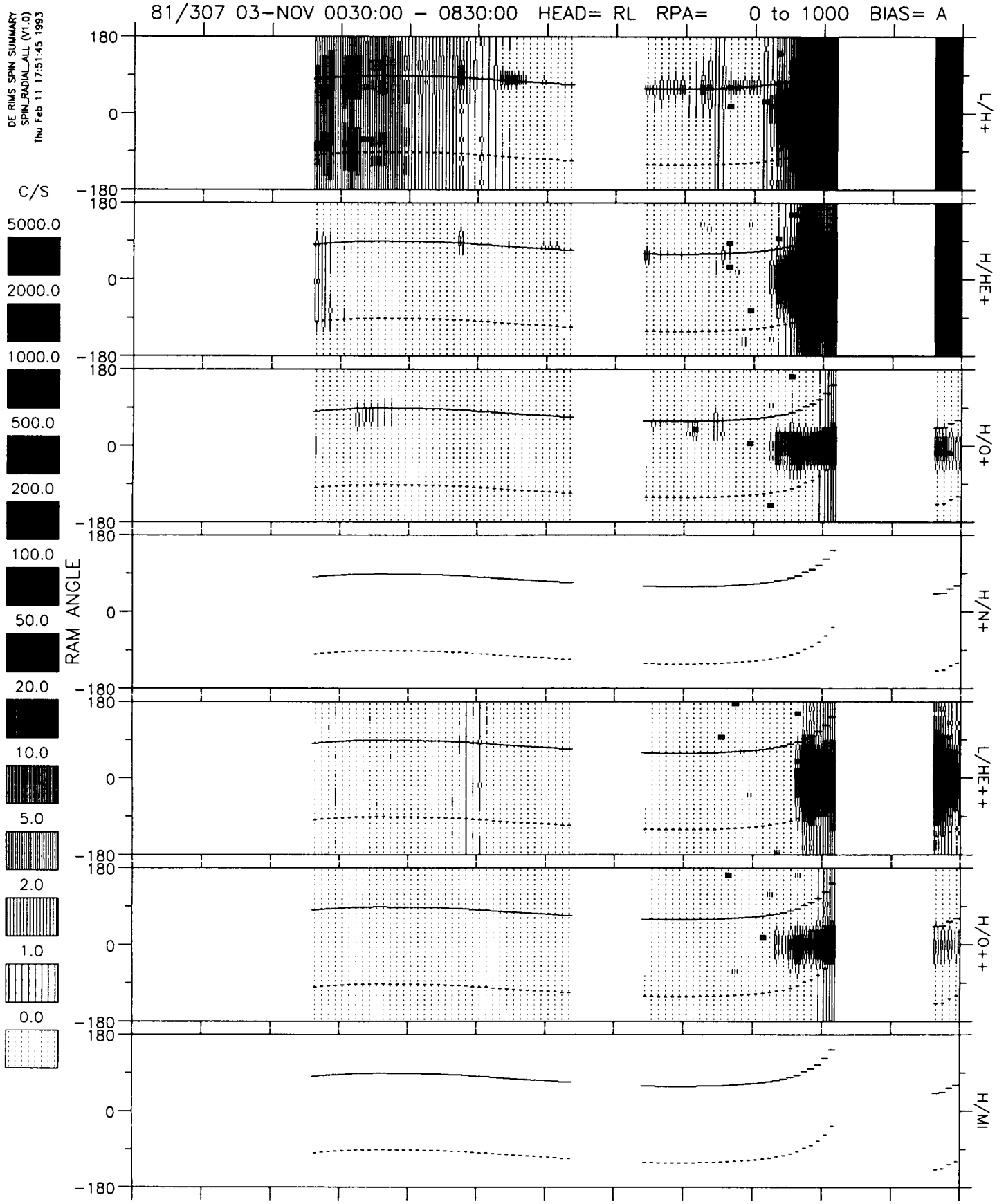

81/305 01-NOV 1415:00 - 2215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:33:56 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1535 1615 1655 1735 1815 0000 0000 0000 0000 0000 DEGS
RE 0.0 3.1 3.9 4.4 4.6 4.6 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 4.3 9.2 17.8 34.5 71.7 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 8.0 7.6 7.0 6.3 5.2 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 32.93 49.58 60.14 68.08 74.39 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 61.3 70.8 76.3 80.2 83.2 0.0 0.0 0.0 0.0 0.0 DEGS

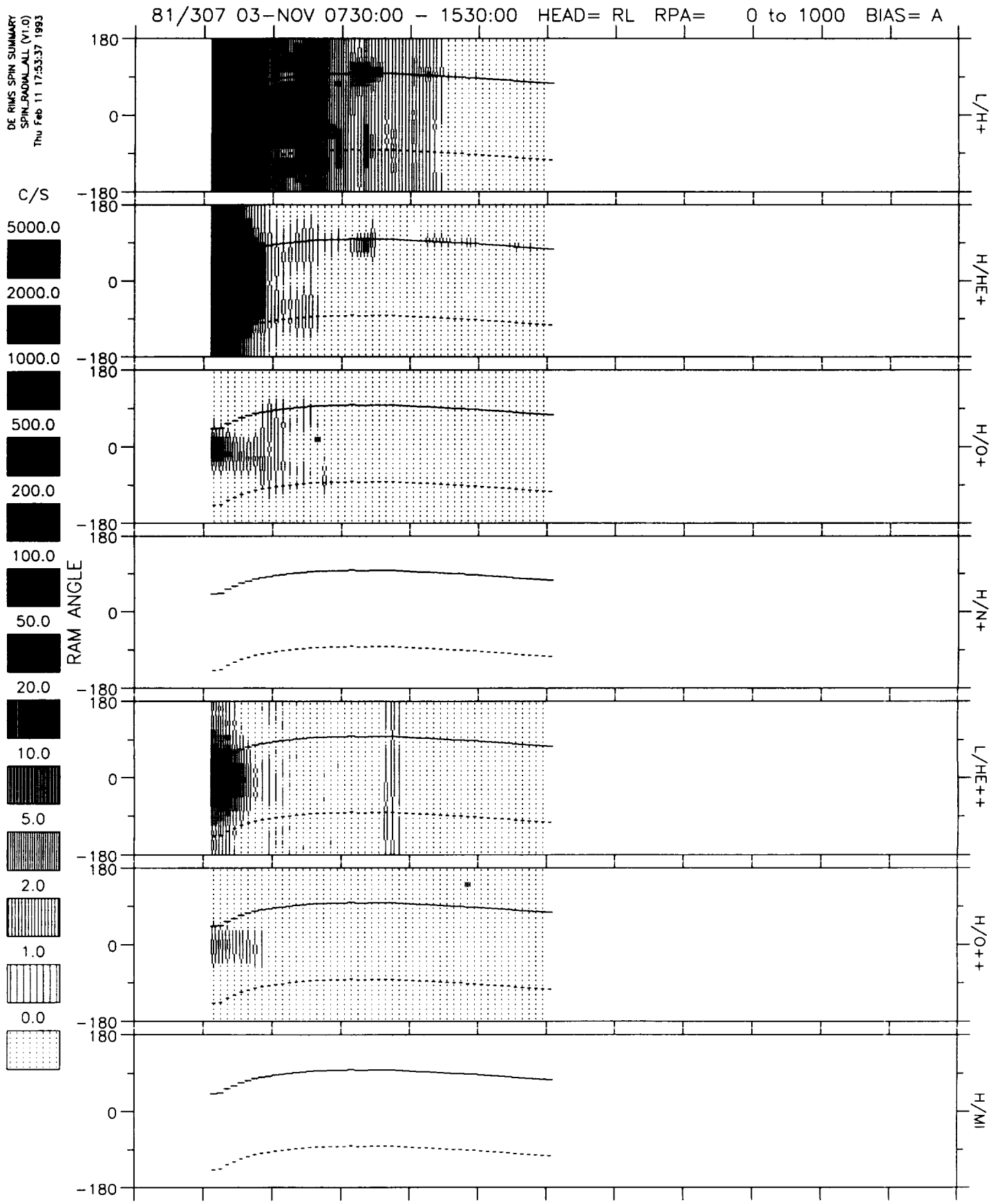

81/305 01-NOV 2100:00 - 0500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:35:34 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 2340 0020 0100 0000 0000 0300 0340 0000 DEGS
RE 0.0 0.0 0.0 4.3 4.6 4.6 0.0 0.0 3.0 1.8 0.0 HHMM
L 0.0 0.0 0.0 8.7 14.7 29.0 0.0 0.0 21.9 2.2 0.0 RE
MLT 0.0 0.0 0.0 7.9 8.0 8.3 0.0 0.0 19.0 19.9 0.0
MLAT 0.00 0.00 0.00 43.89 54.83 65.33 0.00 0.00 68.18 26.67 0.00 HRS
INVLAT 0.0 0.0 0.0 70.1 74.9 79.3 0.0 0.0 77.7 47.8 0.0 DEGS

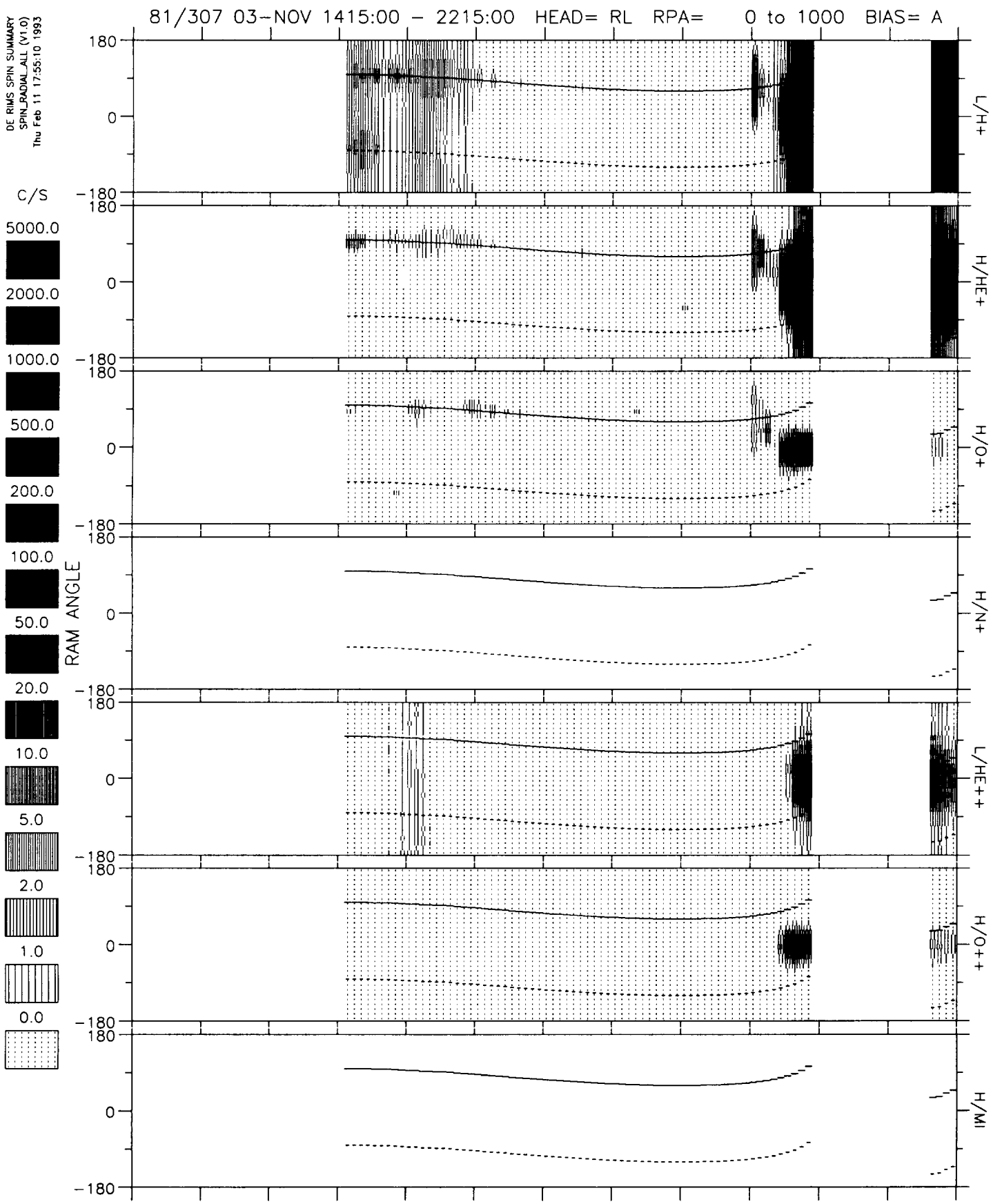

81/306 02-NOV 0400:00 - 1200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:45:24 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0520 0600 0640 0720 0000 0840 0000 0000 1040 0000 DEGS
RE 0.0 3.1 3.9 4.4 4.6 0.0 4.3 0.0 0.0 1.6 0.0 HHMM
L 0.0 3.7 7.0 13.8 31.3 0.0 100.0 0.0 0.0 1.5 0.0 RE
MLT 0.0 8.7 9.1 9.6 10.4 0.0 16.7 0.0 0.0 20.4 0.0
MLAT 0.00 22.81 42.14 56.21 67.94 0.00 78.25 0.00 0.00 -3.25 0.00 HRS
INVLAT 0.0 58.5 67.8 74.4 79.7 0.0 84.9 0.0 0.0 35.4 0.0 DEGS

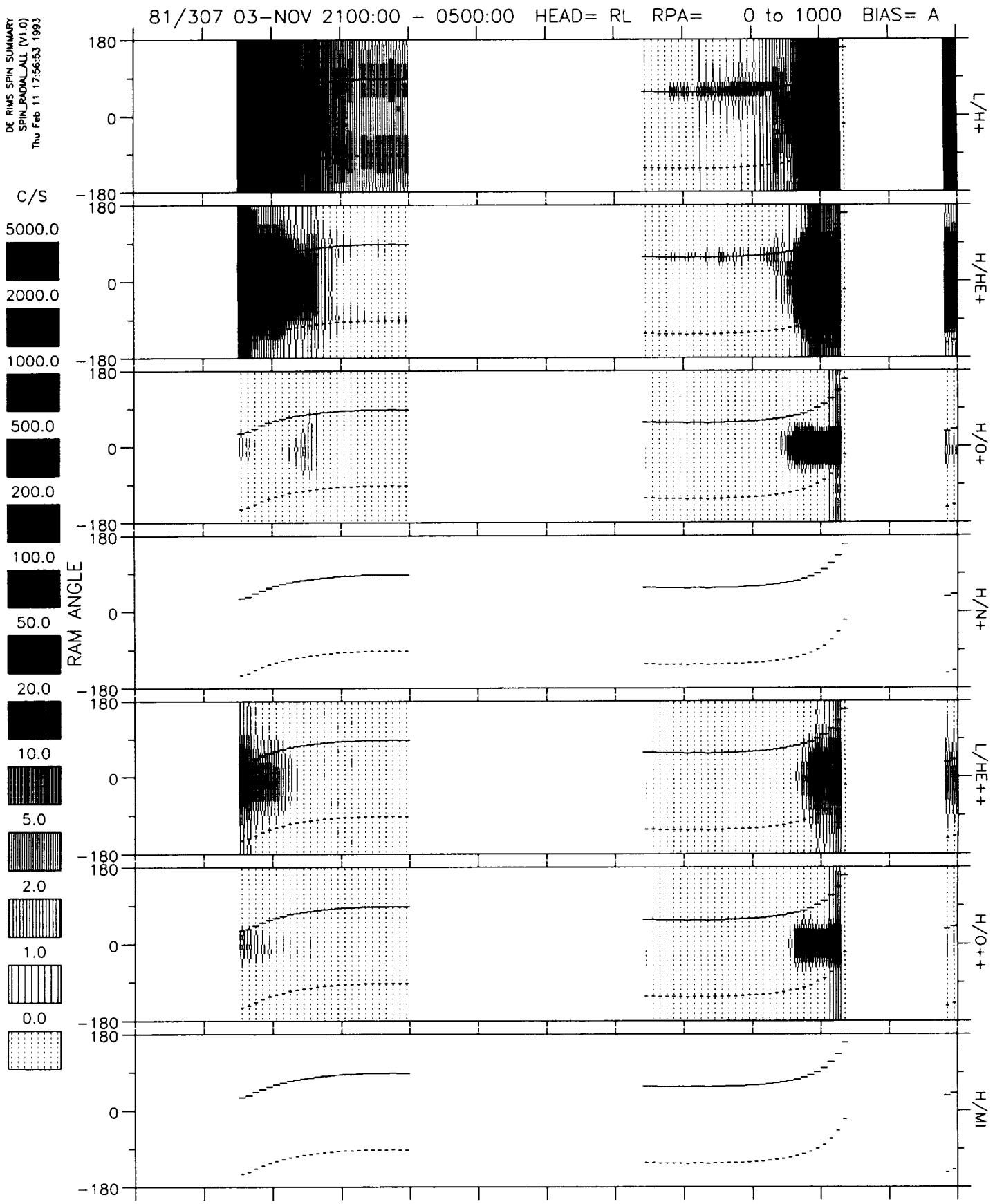

81/306 02-NOV 1100:00 - 1900:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:47:27 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1140 1220 1300 1340 0000 0000 1540 1620 1700 0000 0000 DEGS
RE 2.3 3.3 4.1 4.5 0.0 0.0 4.2 3.5 2.5 0.0 0.0 HHMM
L 2.5 6.1 15.3 40.3 0.0 0.0 86.8 18.9 4.4 0.0 0.0 RE
MLT 8.4 8.4 8.2 7.7 0.0 0.0 22.8 21.6 20.9 0.0 0.0
MLAT 13.60 42.27 59.28 70.83 0.00 0.00 76.28 63.78 41.28 0.00 0.00 HRS
INVLAT 50.3 66.0 75.2 80.9 0.0 0.0 83.8 76.7 61.5 0.0 0.0 DEGS

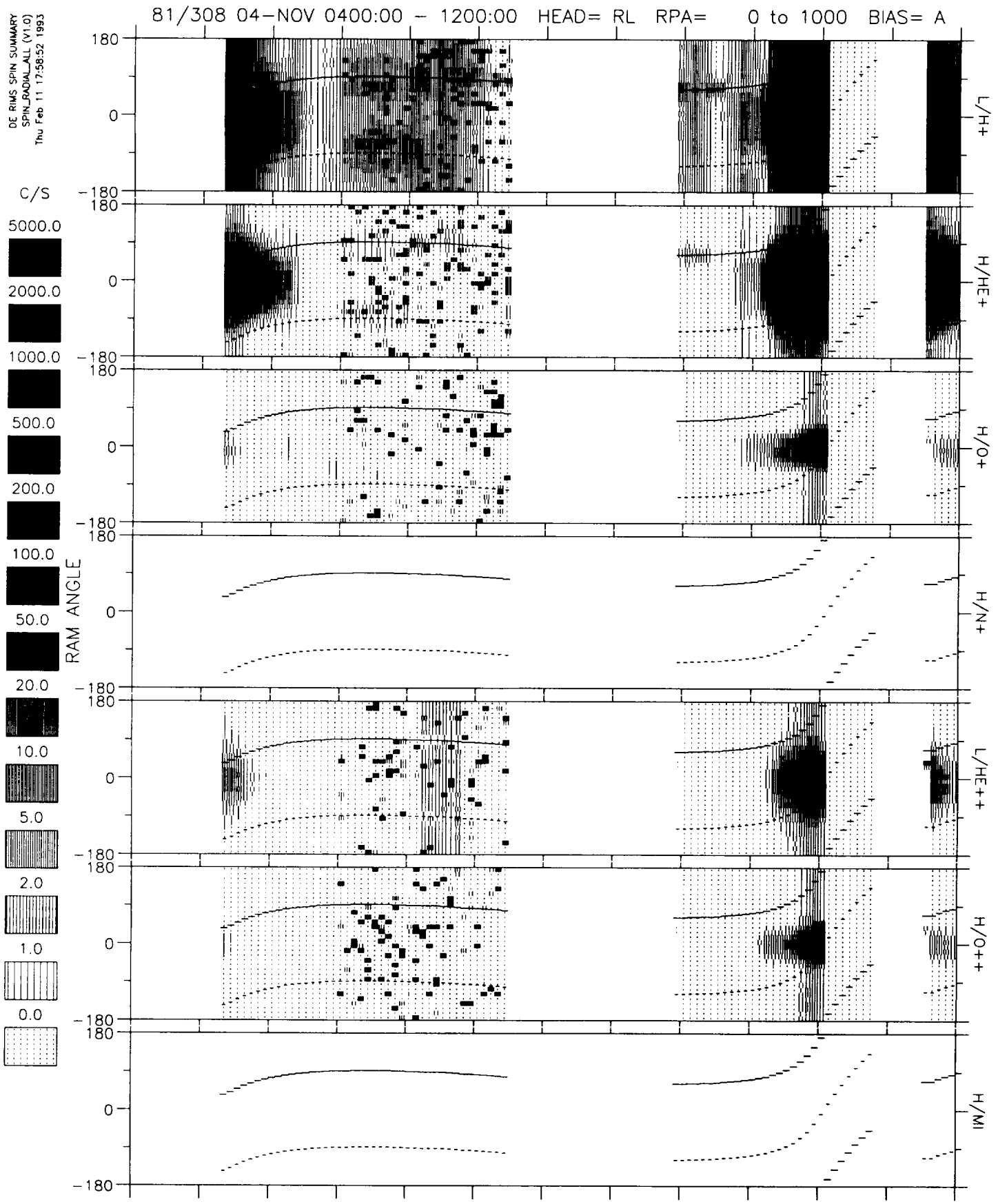

81/306 02-NOV 1815:00 - 0215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:49:35 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1855 1935 2015 2055 2135 2215 2255 2335 0015 0000 0000 DEGS
RE 3.0 3.8 4.4 4.6 4.6 4.4 3.8 3.0 1.8 0.0 0.0 HHMM
L 3.3 6.1 10.4 17.8 34.6 100.0 100.0 21.6 2.4 0.0 0.0 RE
MLT 7.8 7.5 7.2 7.0 6.7 6.1 1.2 20.4 20.0 0.0 0.0
MLAT 20.99 38.14 49.37 58.59 67.48 77.09 85.37 69.66 30.09 0.00 0.00 HRS
INVLAT 56.8 66.2 72.0 76.3 80.2 84.4 87.2 77.6 50.1 0.0 0.0 DEGS

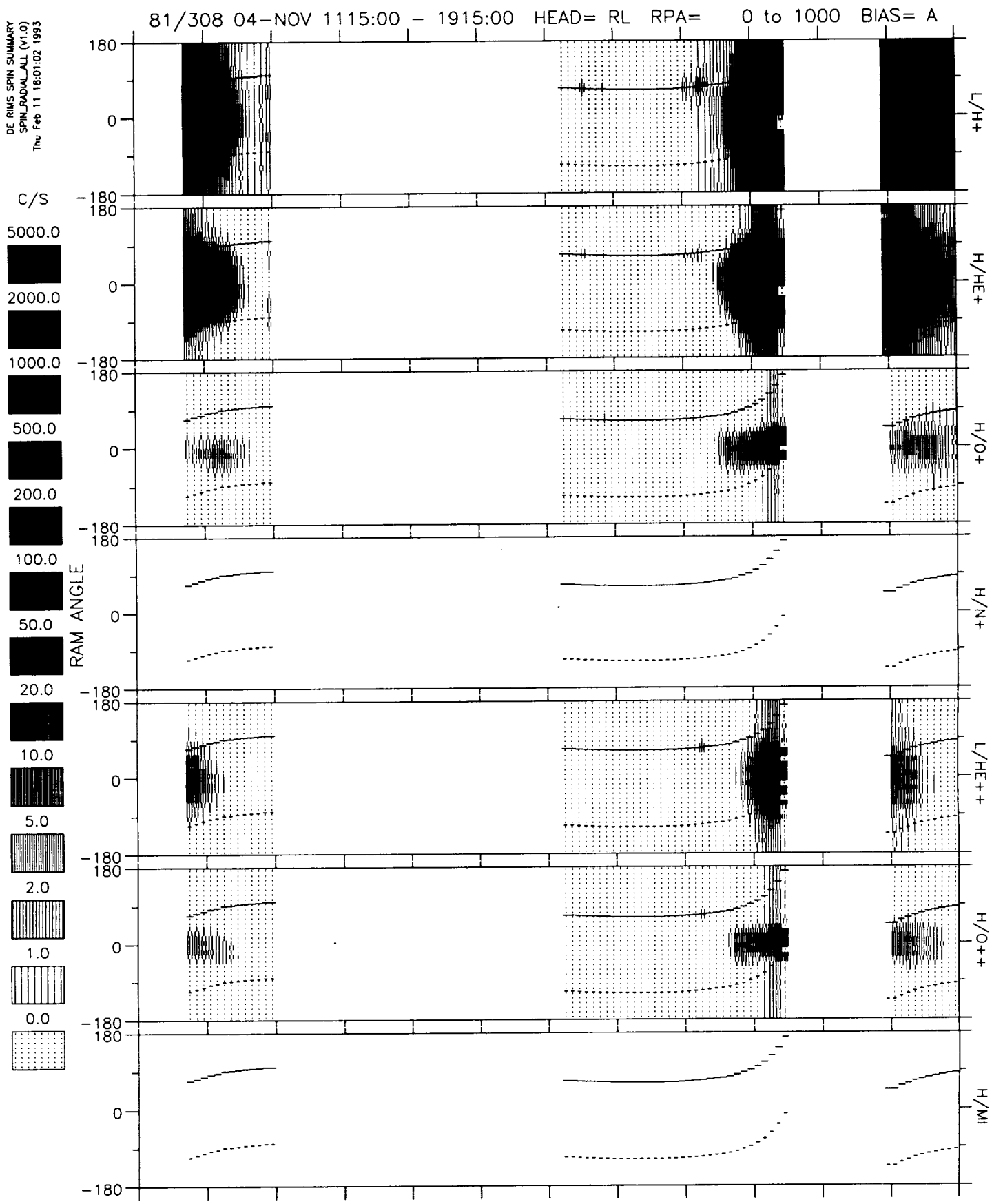

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:51:45 1993
81/307 03-NOV 0030:00 - 0830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0230 0310 0350 0430 0000 0550 0630 0710 0000 DEGS
RE 0.0 0.0 3.9 4.4 4.6 4.6 0.0 3.8 2.8 1.6 0.0 HHMM
L 0.0 0.0 5.7 9.9 18.1 41.0 0.0 99.7 8.3 1.5 0.0 RE
MLT 0.0 0.0 8.4 8.7 9.2 10.2 0.0 17.3 19.2 20.3 0.0
MLAT 0.00 0.00 33.50 47.30 59.03 69.78 0.00 74.27 54.28 3.71 0.00 HRS
INVLAT 0.0 0.0 65.3 71.4 76.4 81.0 0.0 85.4 69.8 35.9 0.0 DEGS

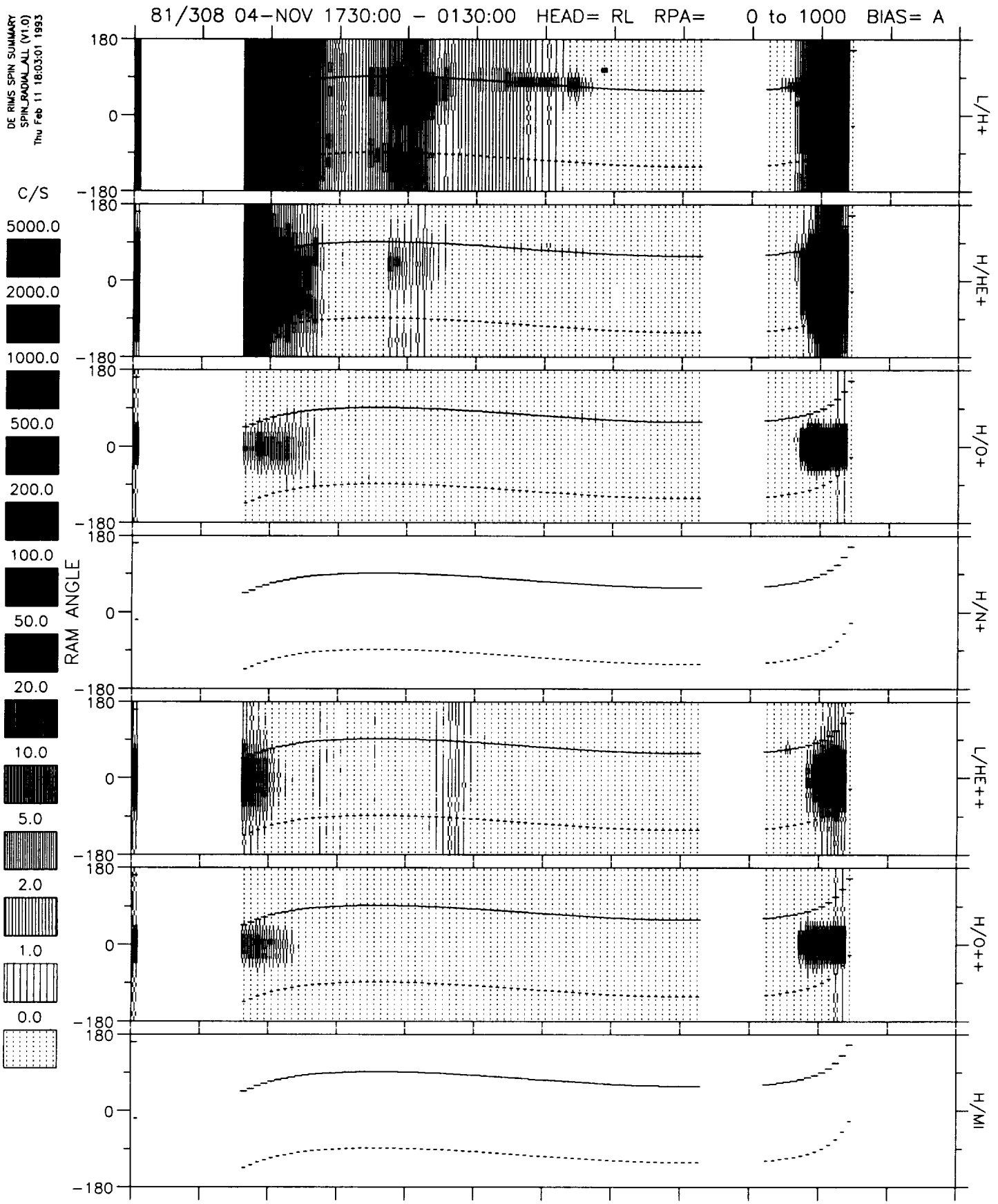

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:53:37 1993
81/307 03-NOV 0730:00 - 1530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0850 0930 1010 1050 1130 0000 0000 0000 0000 0000 DEGS
RE 0.0 3.3 4.0 4.5 4.7 4.6 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 4.8 11.0 27.7 100.0 100.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 8.8 9.1 9.4 10.1 15.4 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 36.18 54.18 67.66 79.18 86.82 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 62.9 72.4 79.0 84.4 88.3 0.0 0.0 0.0 0.0 0.0 DEGS

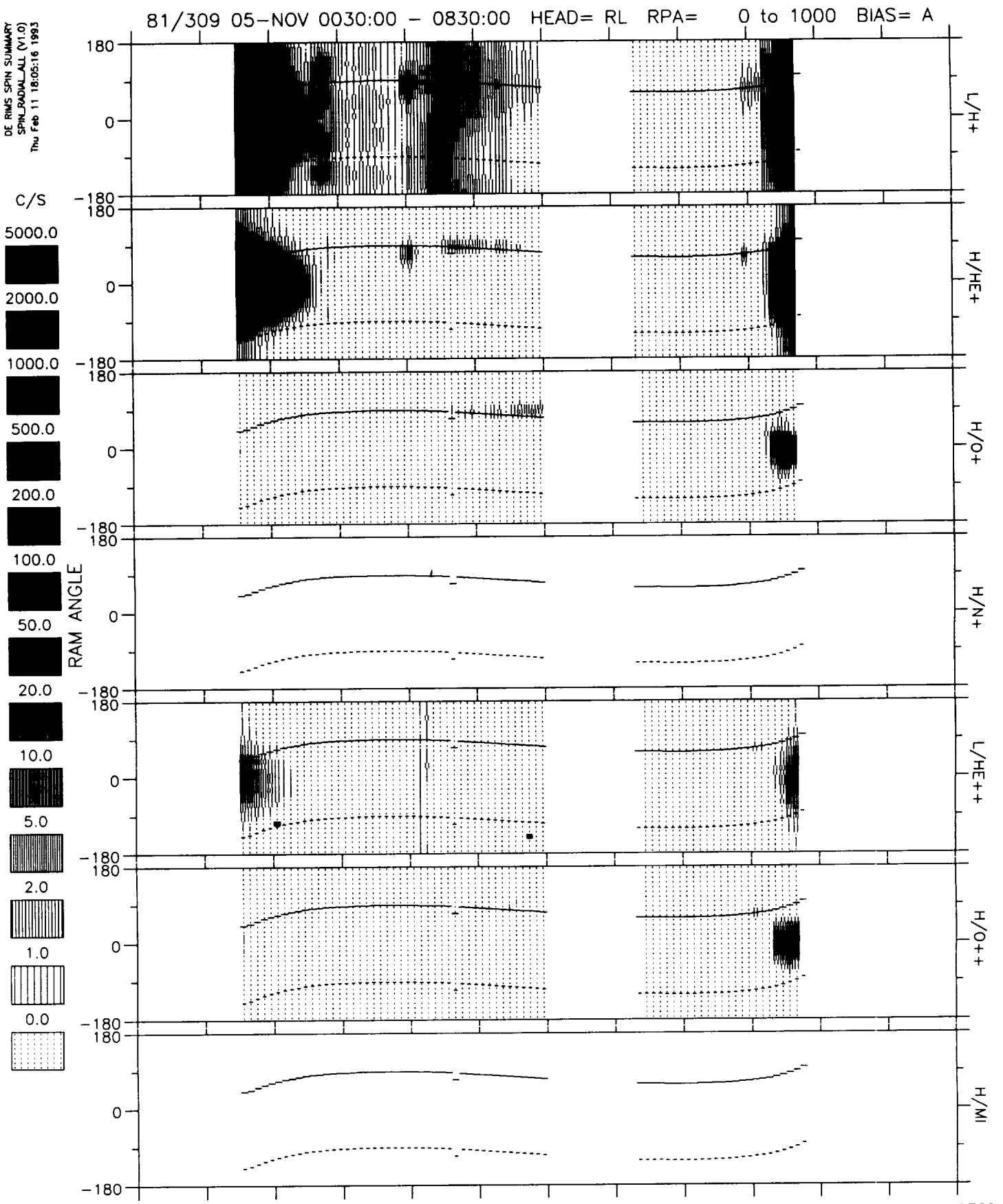

81/307 03-NOV 1415:00 - 2215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:55:10 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 1655 1735 1815 1855 1935 2015 0000 0000 DEGS
RE 0.0 0.0 0.0 4.4 4.6 4.6 4.3 3.7 2.8 0.0 0.0 HHMM
L 0.0 0.0 0.0 18.1 34.5 73.4 100.0 50.6 8.6 0.0 0.0 RE
MLT 0.0 0.0 0.0 6.9 6.2 5.0 2.5 23.0 21.1 0.0 0.0
MLAT 0.00 0.00 0.00 60.22 68.04 74.55 78.69 74.68 57.64 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 76.4 80.2 83.3 85.1 81.9 70.0 0.0 0.0 DEGS

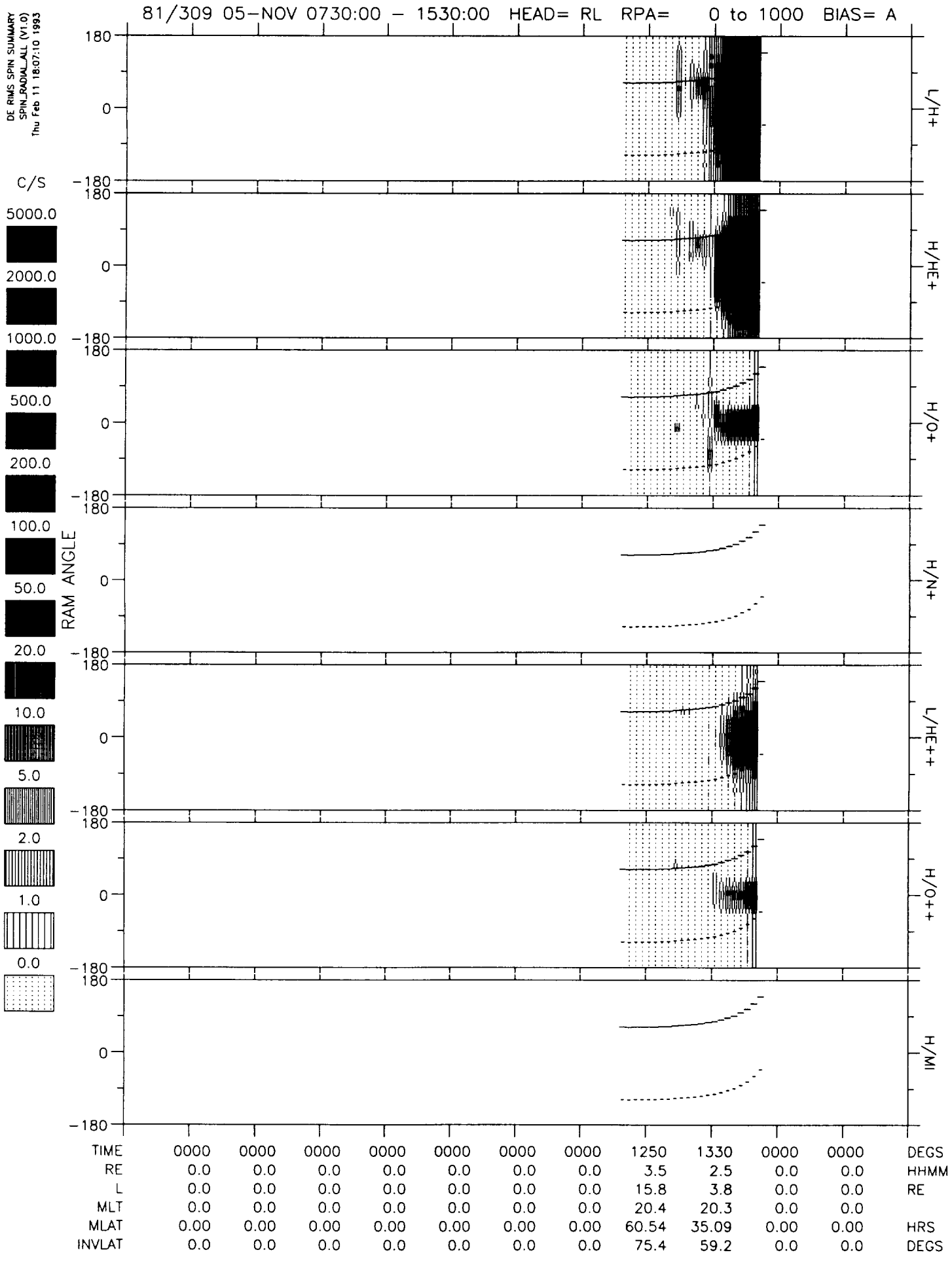

81/307 03-NOV 2100:00 - 0500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:56:53 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 2220 2300 0000 0000 0000 0000 0220 0300 0340 0000 DEGS
RE 0.0 3.0 3.9 0.0 0.0 0.0 0.0 3.8 2.9 1.6 0.0 HHMM
L 0.0 3.1 5.4 0.0 0.0 0.0 0.0 -0.0 17.6 1.8 0.0 RE
MLT 0.0 7.8 7.7 0.0 0.0 0.0 0.0 15.1 18.9 19.9 0.0
MLAT 0.00 13.44 31.67 0.00 0.00 0.00 0.00 84.18 65.98 19.17 0.00 HRS
INVLAT 0.0 55.6 64.5 0.0 0.0 0.0 0.0 -0.0 76.2 42.1 0.0 DEGS

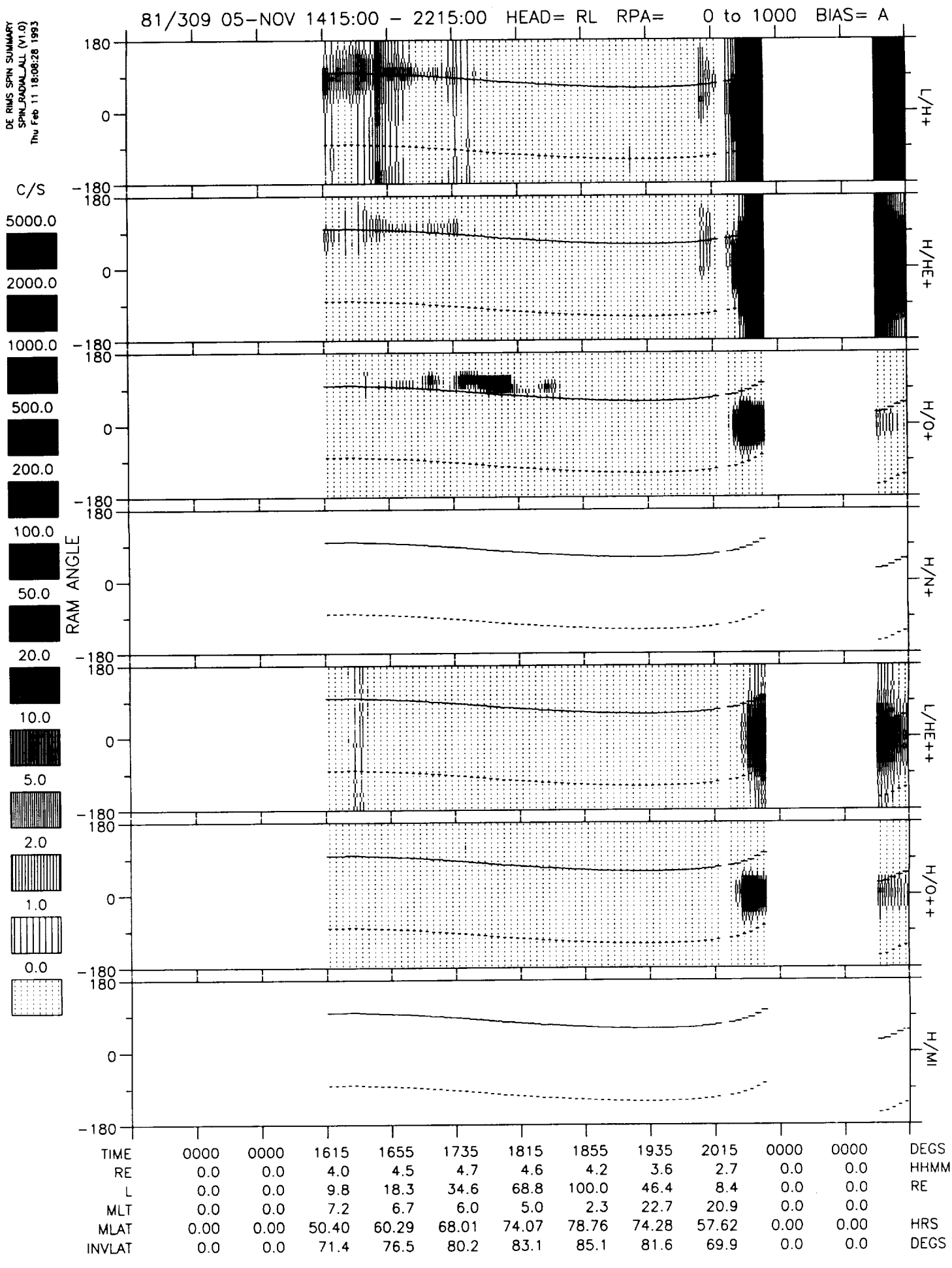

81/308 04-NOV 0400:00 - 1200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 17:58:52 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0520 0600 0640 0720 0000 0000 0920 1000 1040 0000 DEGS
RE 0.0 3.2 4.0 4.5 4.7 0.0 0.0 3.6 2.7 1.3 0.0 HHMM
L 0.0 3.9 7.4 14.5 33.2 0.0 0.0 22.5 4.9 1.5 0.0 RE
MLT 0.0 8.6 9.0 9.5 10.3 0.0 0.0 19.1 19.9 20.4 0.0
MLAT 0.00 24.69 43.25 57.03 68.64 0.00 0.00 65.15 41.79 ***** 0.00 HRS
INVLAT 0.0 59.5 68.4 74.8 80.0 0.0 0.0 77.8 63.1 34.8 0.0 DEGS

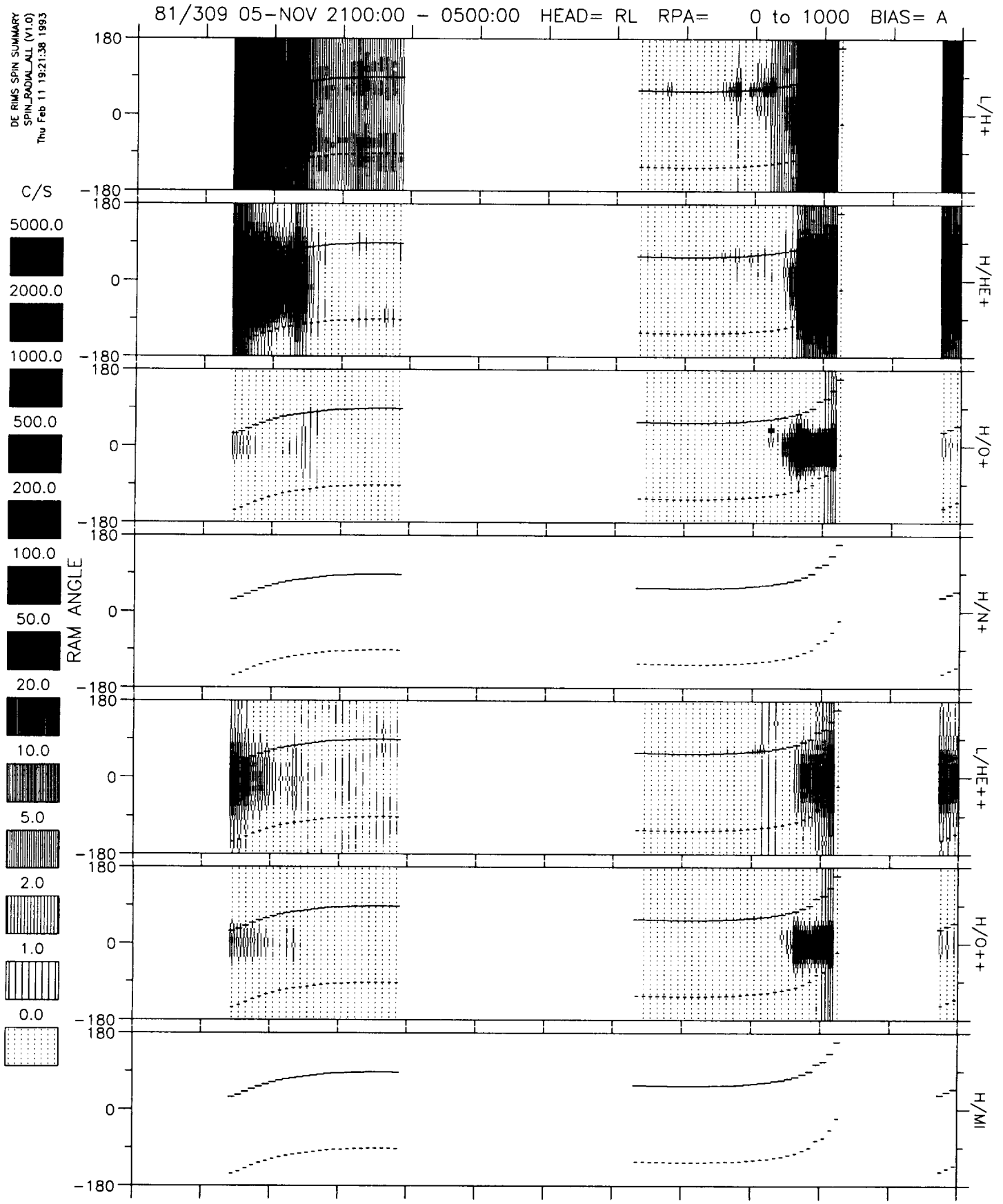

81/308 04-NOV 1115:00 - 1915:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 18:01:02 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1155 0000 0000 0000 0000 0000 1555 1635 1715 0000 1835 DEGS
RE 2.8 0.0 0.0 0.0 0.0 0.0 4.0 3.1 1.9 0.0 2.5 HHMM
L 3.8 0.0 0.0 0.0 0.0 0.0 50.3 10.0 2.1 0.0 2.5 RE
MLT 8.3 0.0 0.0 0.0 0.0 0.0 22.2 21.1 20.4 0.0 7.9
MLAT 29.94 0.00 0.00 0.00 0.00 0.00 72.76 55.86 20.59 0.00 9.09 HRS
INVLAT 59.2 0.0 0.0 0.0 0.0 0.0 81.9 71.5 46.2 0.0 51.0 DEGS

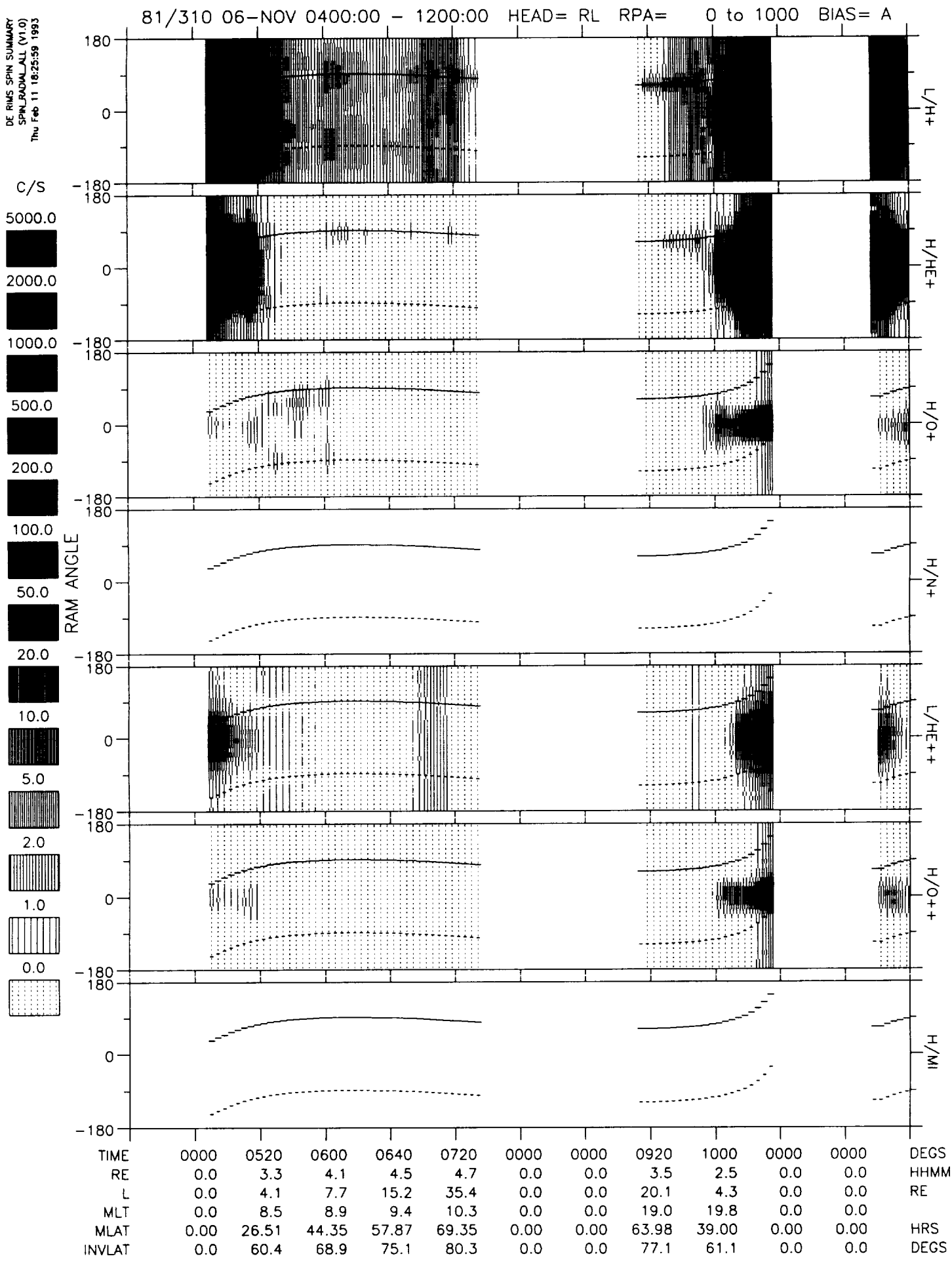

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 18:03:01 1993
81/308 04-NOV 1730:00 - 0130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0000 1850 1930 2010 2050 2130 2210 2250 0000 0010 0000 DEGS
RE 0.0 2.9 3.8 4.4 4.6 4.6 4.4 3.8 0.0 1.7 0.0 HHMM
L 0.0 3.2 5.6 10.0 16.8 29.8 91.8 -0.0 0.0 2.3 0.0 RE
MLT 0.0 7.7 7.4 7.1 6.9 6.7 6.1 2.0 0.0 19.8 0.0
MLAT 0.00 19.59 35.74 48.34 57.63 65.70 76.22 85.64 0.00 28.69 0.00 HRS
INVLAT 0.0 56.3 65.1 71.5 75.9 79.4 84.0 -0.0 0.0 49.0 0.0 DEGS

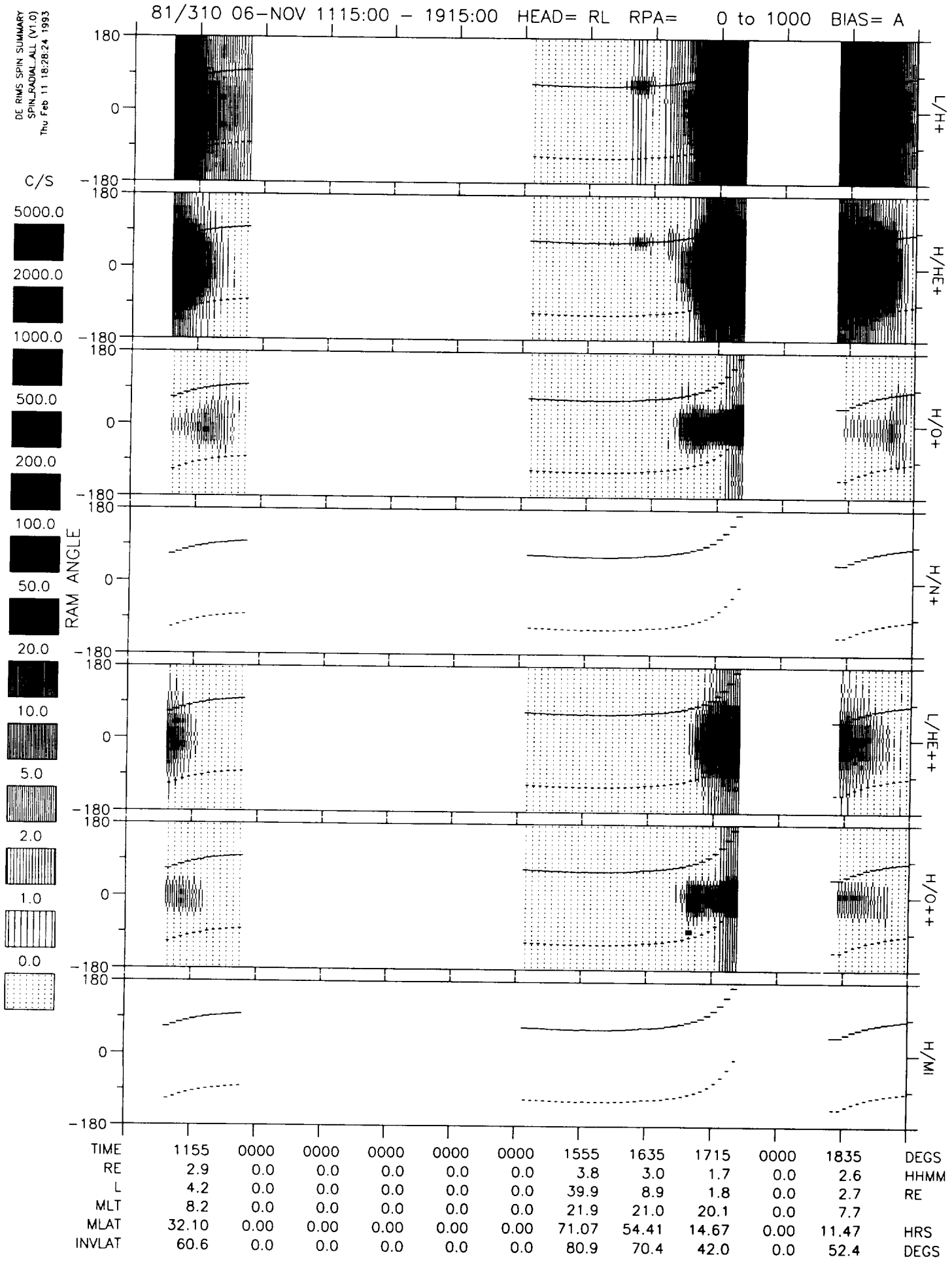

81/309 05-NOV 0030:00 - 0830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 18:05:16 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0150 0230 0310 0350 0000 0000 0550 0630 0000 0000 DEGS
RE 0.0 3.2 4.0 4.4 4.6 0.0 0.0 3.7 2.7 0.0 0.0 HHMM
L 0.0 3.4 6.0 10.2 18.8 0.0 0.0 48.5 7.1 0.0 0.0 RE
MLT 0.0 8.0 8.2 8.6 9.1 0.0 0.0 17.4 19.2 0.0 0.0
MLAT 0.00 16.14 34.51 48.02 59.65 0.00 0.00 73.11 51.83 0.00 0.00 HRS
INVLAT 0.0 57.4 65.8 71.8 76.7 0.0 0.0 81.7 68.0 0.0 0.0 DEGS

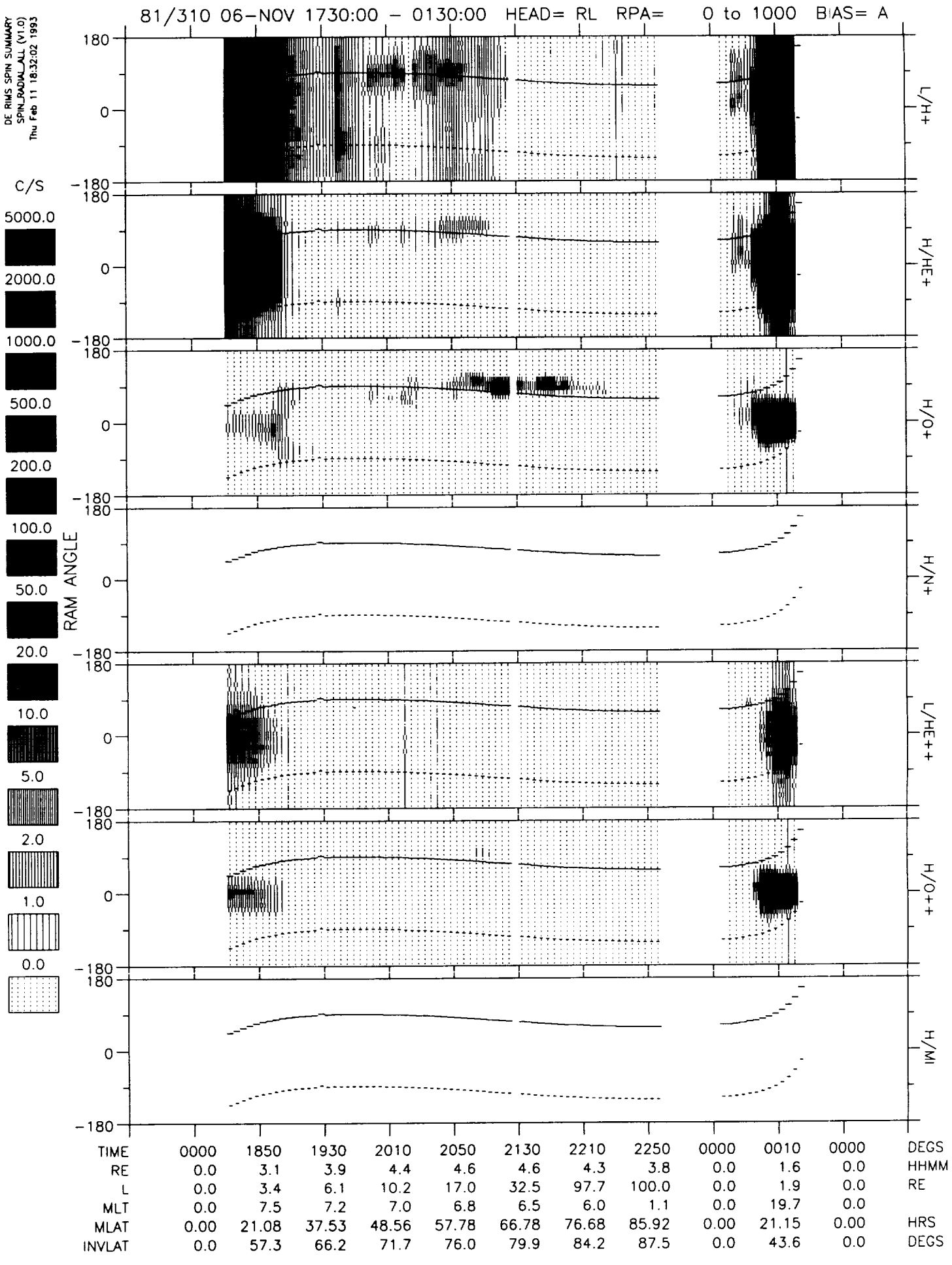

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 18:07:10 1993
81/309 05-NOV 0730:00 - 1530:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 1250 1330 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.5 2.5 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 15.8 3.8 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 20.4 20.3 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 60.54 35.09 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 75.4 59.2 0.0 0.0 DEGS

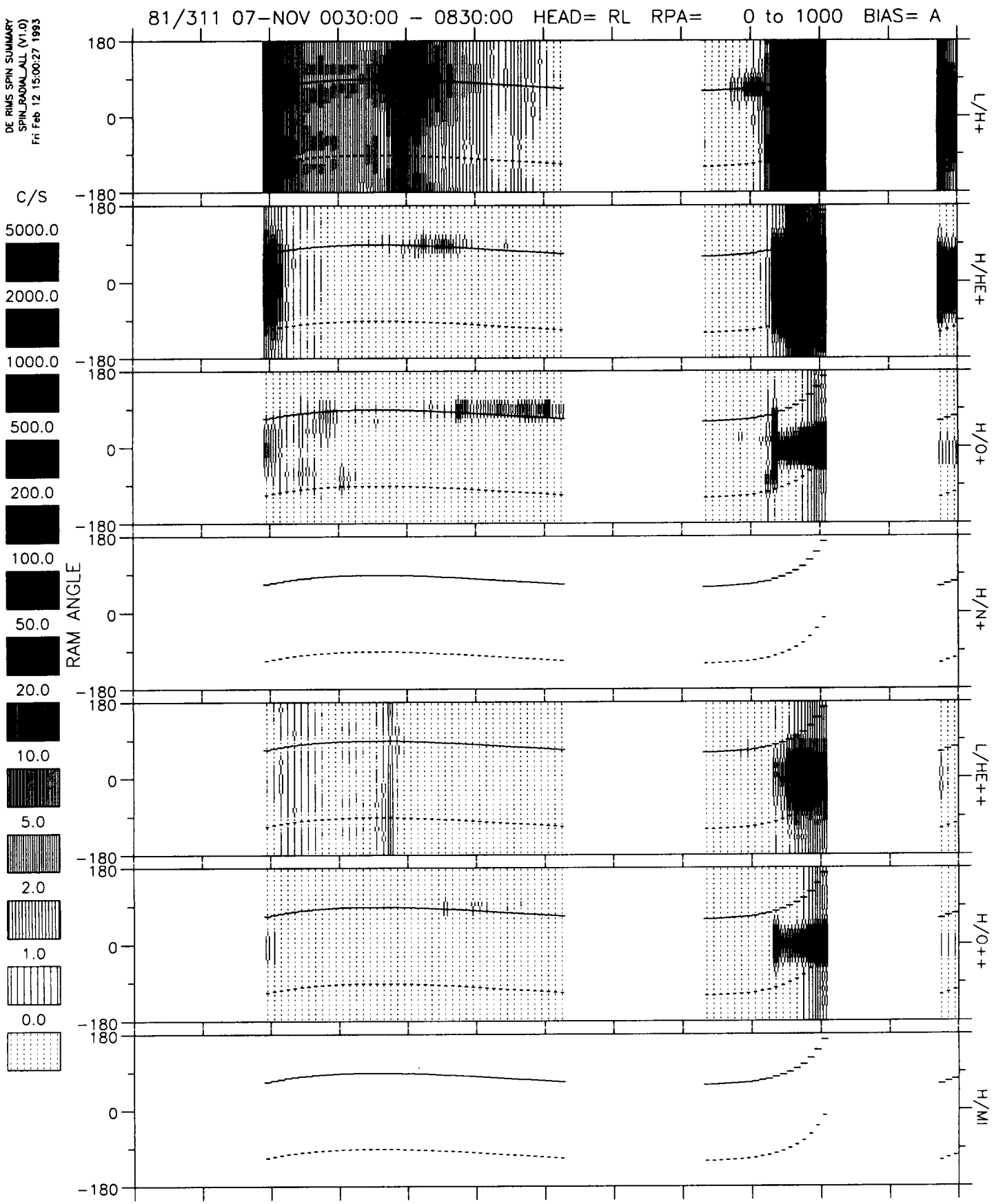

81/309 05-NOV 1415:00 - 2215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 18:08:28 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 1615 1655 1735 1815 1855 1935 2015 0000 0000 DEGS
RE 0.0 0.0 4.0 4.5 4.7 4.6 4.2 3.6 2.7 0.0 0.0 HHMM
L 0.0 0.0 9.8 18.3 34.6 68.8 100.0 46.4 8.4 0.0 0.0 RE
MLT 0.0 0.0 7.2 6.7 6.0 5.0 2.3 22.7 20.9 0.0 0.0
MLAT 0.00 0.00 50.40 60.29 68.01 74.07 78.76 74.28 57.62 0.00 0.00 HRS
INVLAT 0.0 0.0 71.4 76.5 80.2 83.1 85.1 81.6 69.9 0.0 0.0 DEGS

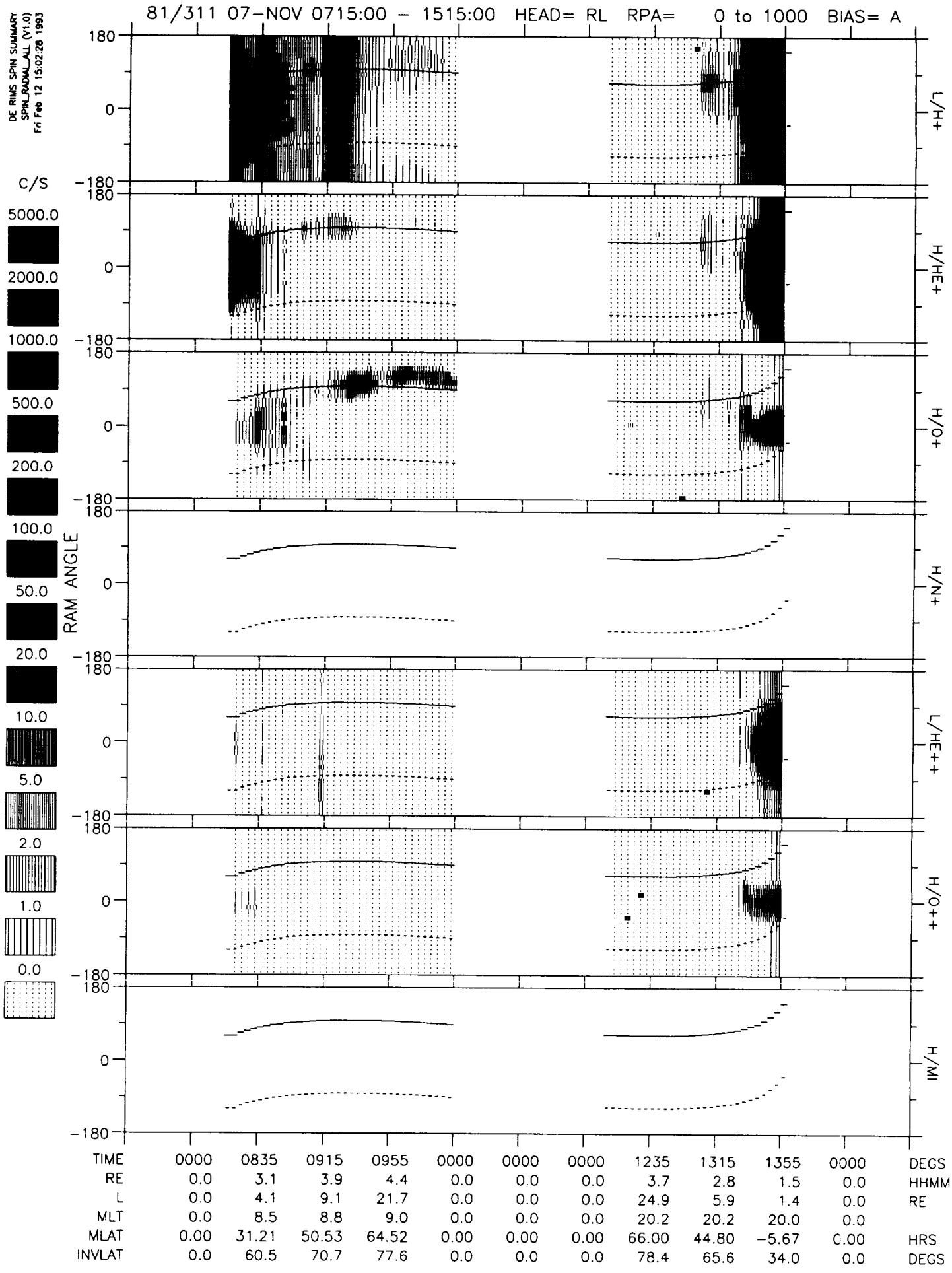

81/309 05-NOV 2100:00 - 0500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 19:21:38 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 2220 2300 0000 0000 0000 0000 0220 0300 0340 0000 DEGS
RE 0.0 3.1 3.9 0.0 0.0 0.0 0.0 3.7 2.8 1.5 0.0 HHMM
L 0.0 3.3 5.6 0.0 0.0 0.0 0.0 -0.0 14.3 1.5 0.0 RE
MLT 0.0 7.6 7.6 0.0 0.0 0.0 0.0 15.5 18.9 19.9 0.0
MLAT 0.00 14.97 32.35 0.00 0.00 0.00 0.00 83.46 63.69 10.59 0.00 HRS
INVLAT 0.0 56.5 64.9 0.0 0.0 0.0 0.0 -0.0 74.7 36.3 0.0 DEGS

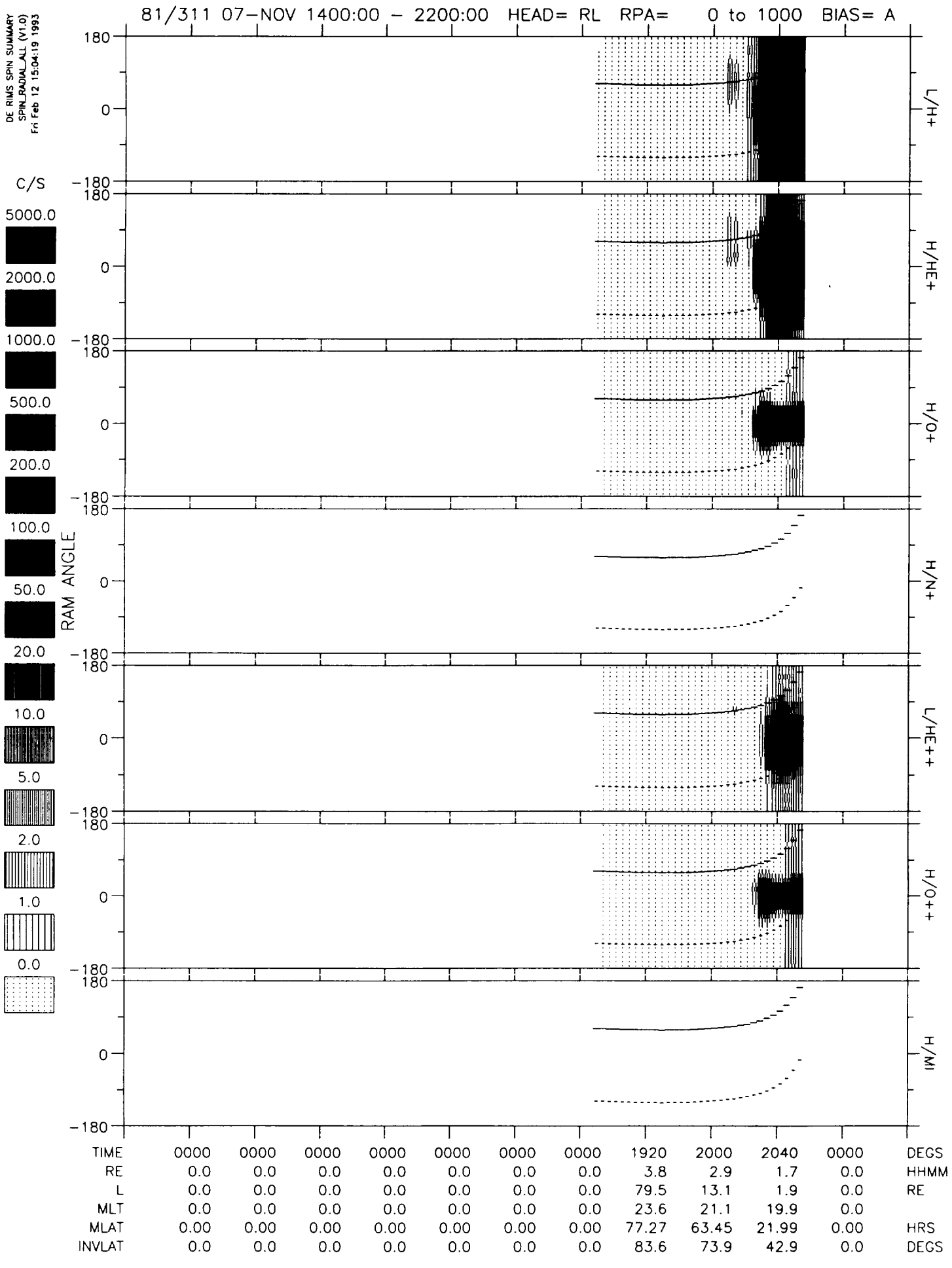

81/310 06-NOV 0400:00 - 1200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 18:25:59 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0520 0600 0640 0720 0000 0000 0920 1000 0000 0000 DEGS
RE 0.0 3.3 4.1 4.5 4.7 0.0 0.0 3.5 2.5 0.0 0.0 HHMM
L 0.0 4.1 7.7 15.2 35.4 0.0 0.0 20.1 4.3 0.0 0.0 RE
MLT 0.0 8.5 8.9 9.4 10.3 0.0 0.0 19.0 19.8 0.0 0.0
MLAT 0.00 26.51 44.35 57.87 69.35 0.00 0.00 63.98 39.00 0.00 0.00 HRS
INVLAT 0.0 60.4 68.9 75.1 80.3 0.0 0.0 77.1 61.1 0.0 0.0 DEGS

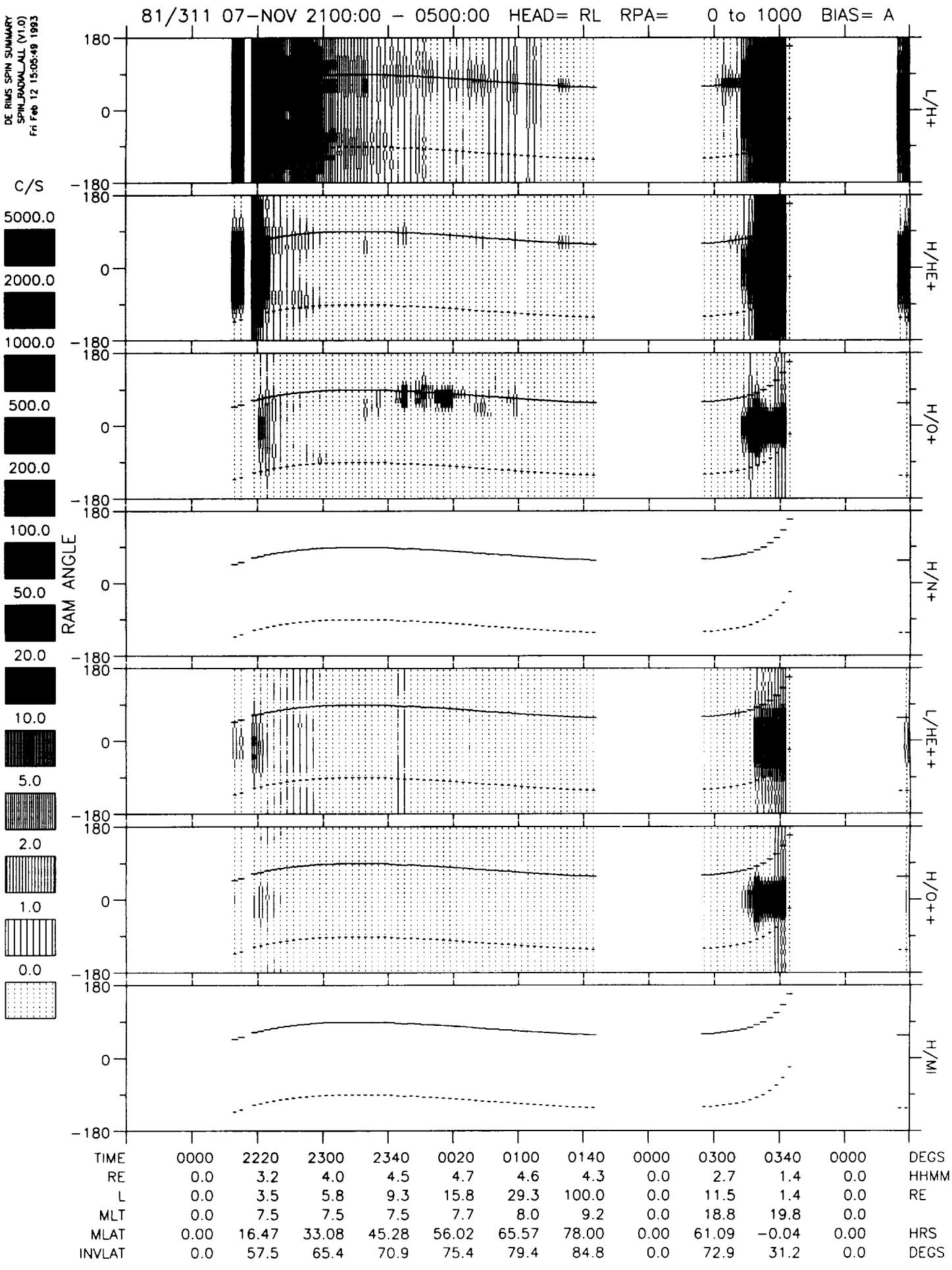

81/310 06-NOV 1115:00 - 1915:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 18:28:24 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1155 0000 0000 0000 0000 0000 1555 1635 1715 0000 1835 DEGS
RE 2.9 0.0 0.0 0.0 0.0 0.0 3.8 3.0 1.7 0.0 2.6 HHMM
L 4.2 0.0 0.0 0.0 0.0 0.0 39.9 8.9 1.8 0.0 2.7 RE
MLT 8.2 0.0 0.0 0.0 0.0 0.0 21.9 21.0 20.1 0.0 7.7
MLAT 32.10 0.00 0.00 0.00 0.00 0.00 71.07 54.41 14.67 0.00 11.47 HRS
INVLAT 60.6 0.0 0.0 0.0 0.0 0.0 80.9 70.4 42.0 0.0 52.4 DEGS

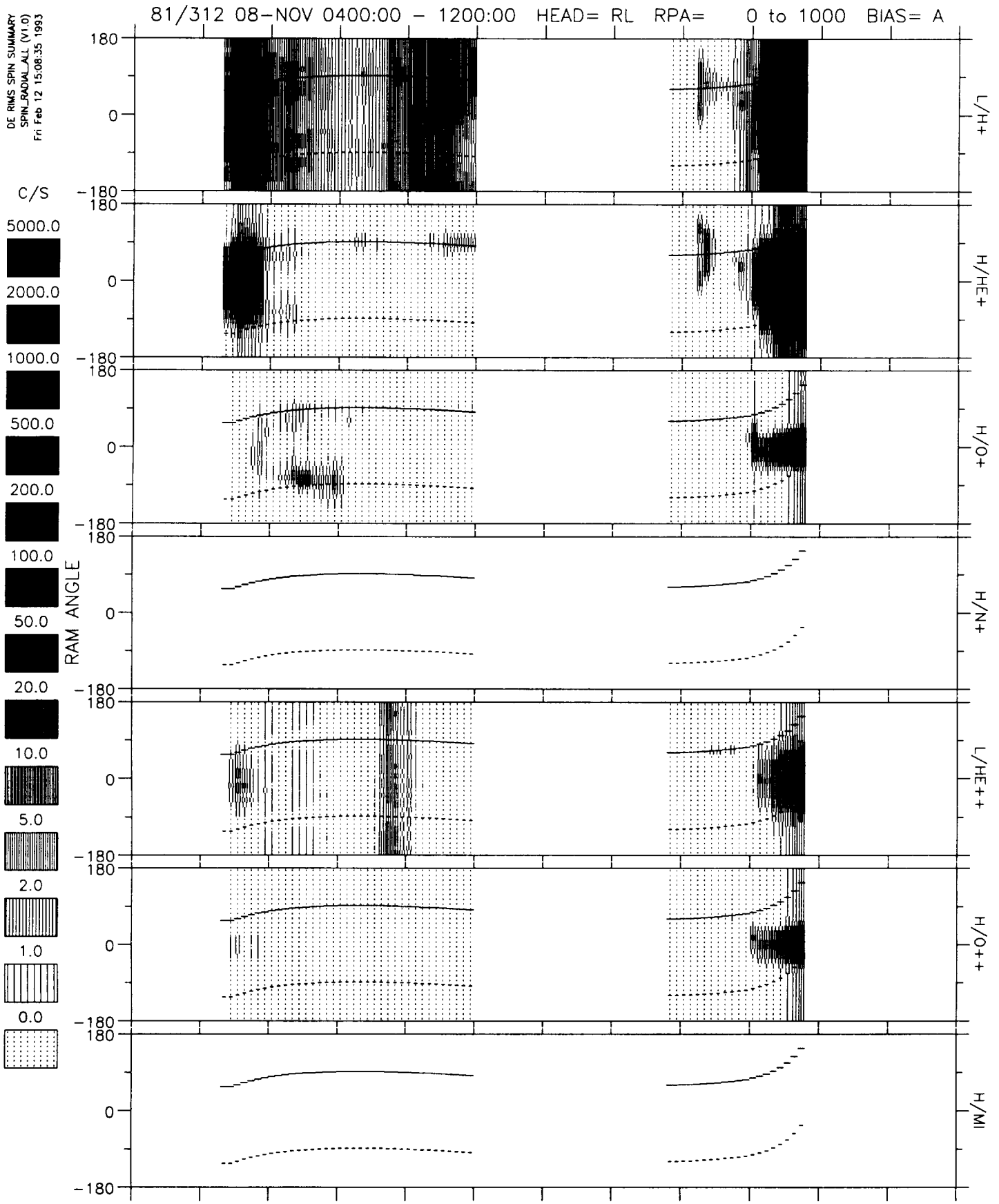

81/310 06-NOV 1730:00 - 0130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 11 18:32:02 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1850 1930 2010 2050 2130 2210 2250 0000 0010 0000 DEGS
RE 0.0 3.1 3.9 4.4 4.6 4.6 4.3 3.8 0.0 1.6 0.0 HHMM
L 0.0 3.4 6.1 10.2 17.0 32.5 97.7 100.0 0.0 1.9 0.0 RE
MLT 0.0 7.5 7.2 7.0 6.8 6.5 6.0 1.1 0.0 19.7 0.0
MLAT 0.00 21.08 37.53 48.56 57.78 66.78 76.68 85.92 0.00 21.15 0.00 HRS
INVLAT 0.0 57.3 66.2 71.7 76.0 79.9 84.2 87.5 0.0 43.6 0.0 DEGS

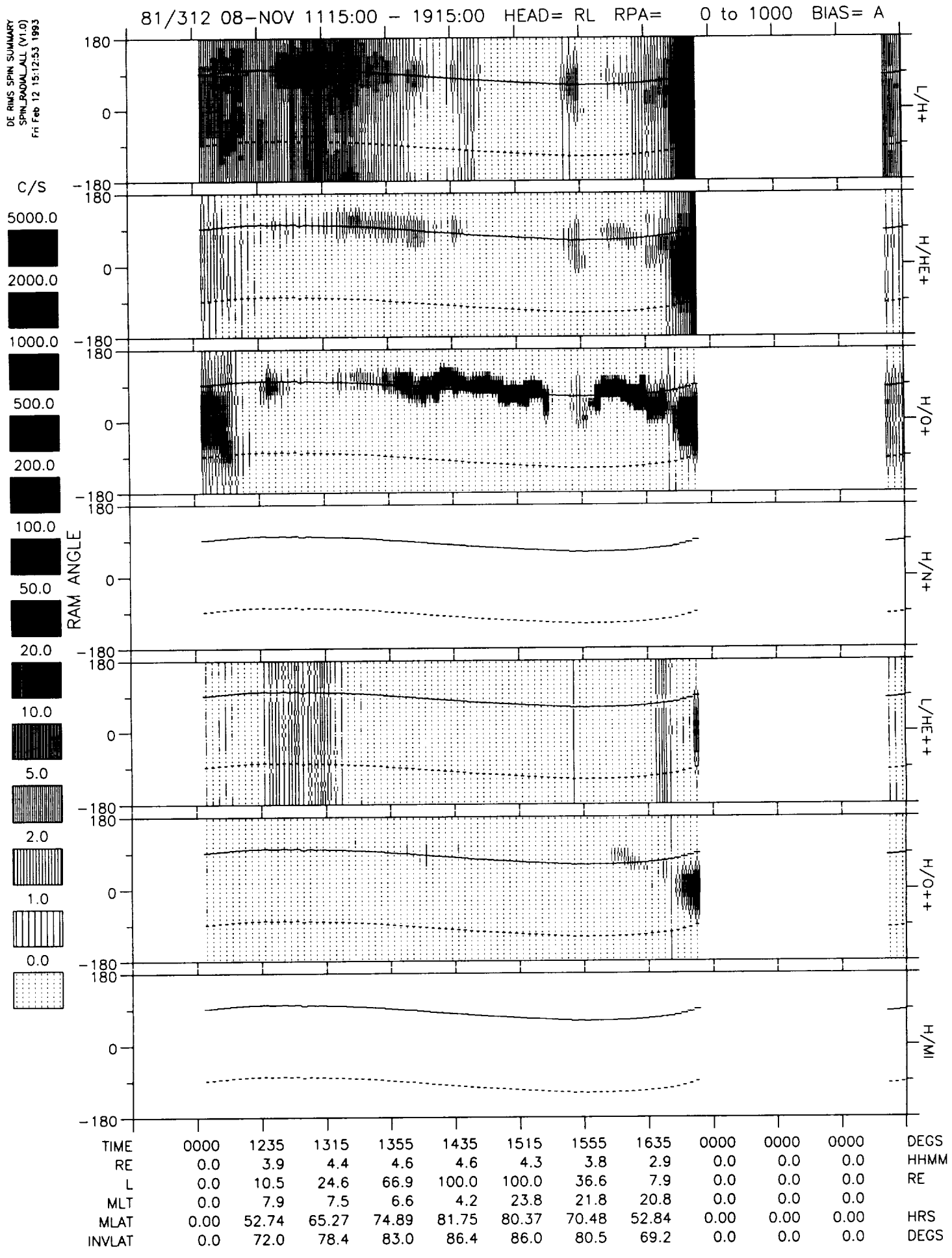

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Feb 12 15:00:27 1993
81/311 07-NOV 0030:00 - 0830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N+
TIME 0000 0150 0230 0310 0350 0430 0000 0000 0630 0710 0000 DEGS
RE 0.0 3.3 4.0 4.5 4.7 4.6 0.0 0.0 2.6 1.4 0.0 HHMM
L 0.0 3.6 6.2 10.6 19.5 45.5 0.0 0.0 6.0 1.4 0.0 RE
MLT 0.0 7.9 8.1 8.5 9.1 10.1 0.0 0.0 19.2 20.2 0.0
MLAT 0.00 17.80 35.44 48.71 60.25 70.91 0.00 0.00 48.97 -8.15 0.00 HRS
INVLAT 0.0 58.3 66.3 72.1 76.9 81.5 0.0 0.0 65.9 32.0 0.0 DEGS

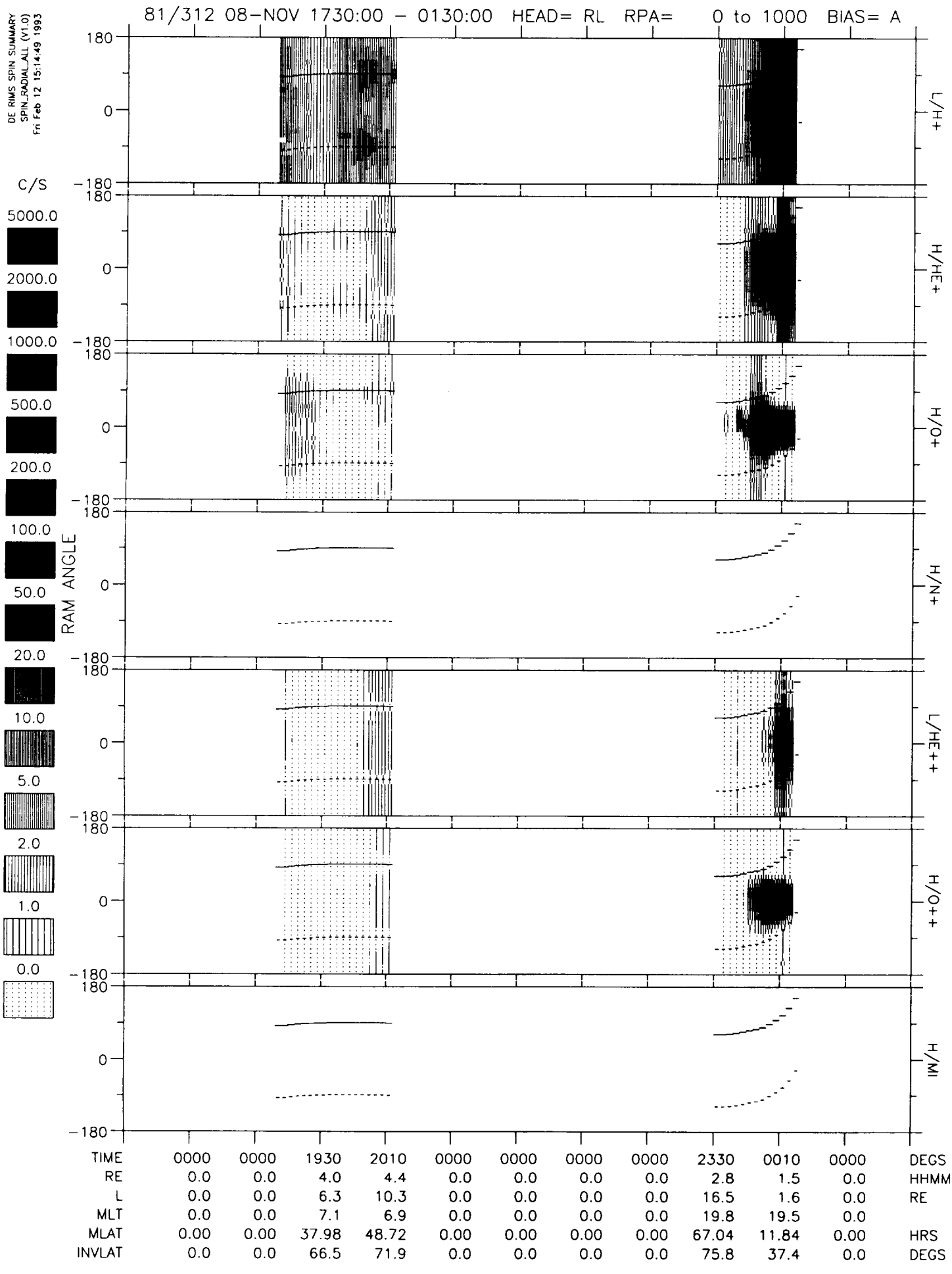

81/311 07-NOV 0715:00 - 1515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Feb 12 15:02:28 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0835 0915 0955 0000 0000 0000 1235 1315 1355 0000 DEGS
RE 0.0 3.1 3.9 4.4 0.0 0.0 0.0 3.7 2.8 1.5 0.0 HHMM
L 0.0 4.1 9.1 21.7 0.0 0.0 0.0 24.9 5.9 1.4 0.0 RE
MLT 0.0 8.5 8.8 9.0 0.0 0.0 0.0 20.2 20.2 20.0 0.0
MLAT 0.00 31.21 50.53 64.52 0.00 0.00 0.00 66.00 44.80 -5.67 0.00 HRS
INVLAT 0.0 60.5 70.7 77.6 0.0 0.0 0.0 78.4 65.6 34.0 0.0 DEGS

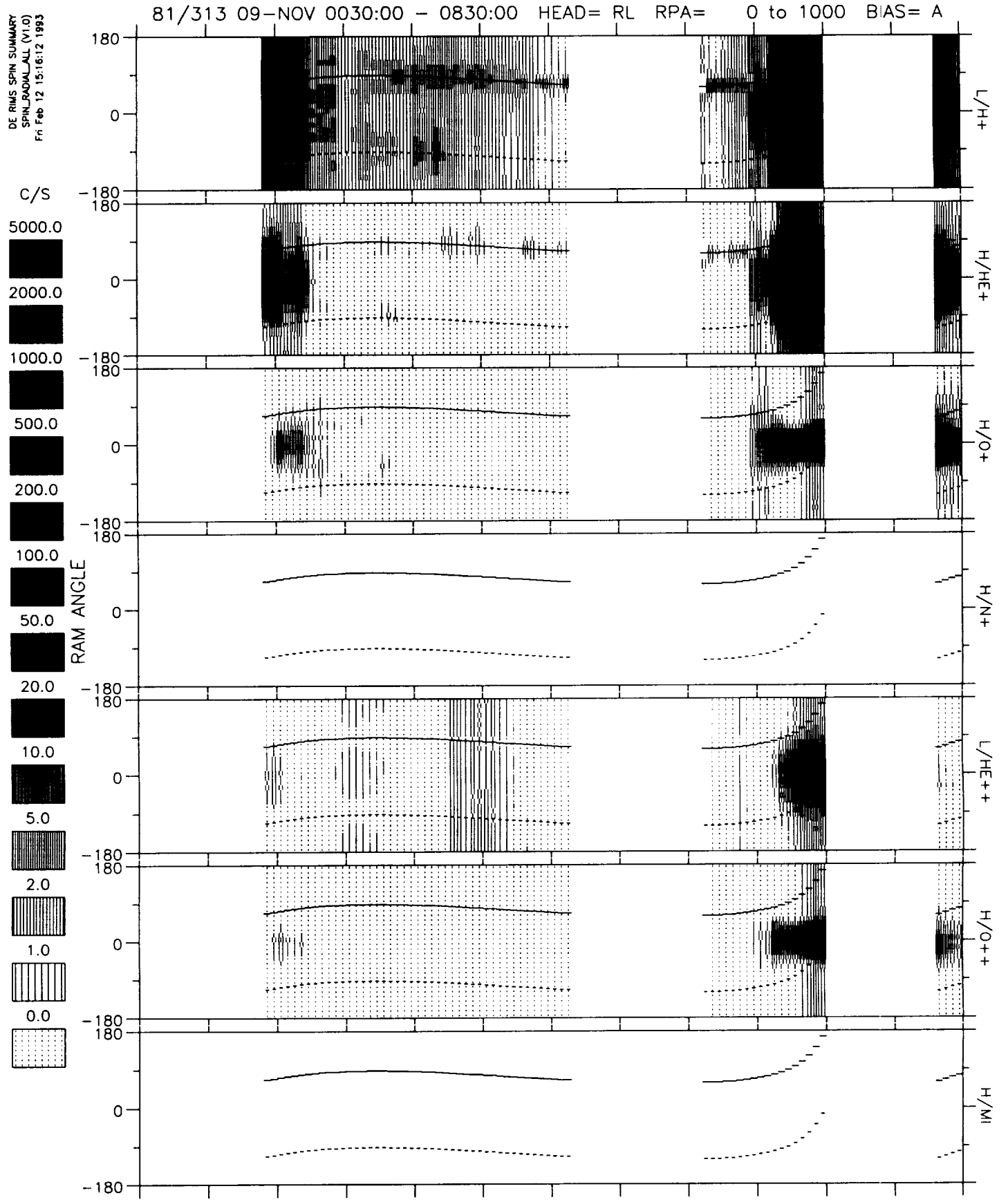

81/311 07-NOV 1400:00 - 2200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Feb 12 15:04:19 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 1920 2000 2040 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.8 2.9 1.7 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 79.5 13.1 1.9 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 23.6 21.1 19.9 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 77.27 63.45 21.99 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 83.6 73.9 42.9 0.0 DEGS

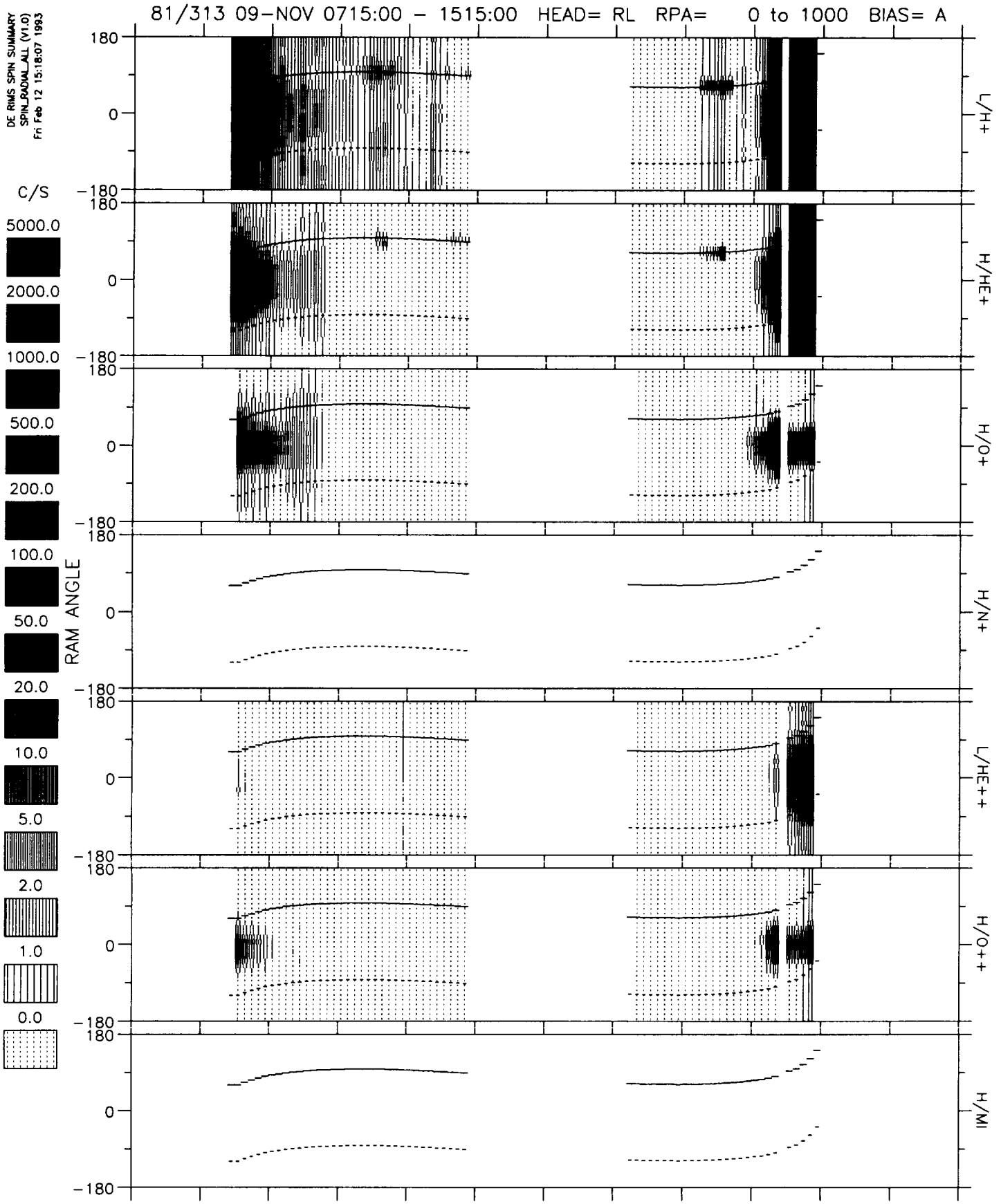

81/311 07-NOV 2100:00 - 0500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Feb 12 15:05:49 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 2220 2300 2340 0020 0100 0140 0000 0300 0340 0000 DEGS
RE 0.0 3.2 4.0 4.5 4.7 4.6 4.3 0.0 2.7 1.4 0.0 HHMM
L 0.0 3.5 5.8 9.3 15.8 29.3 100.0 0.0 11.5 1.4 0.0 RE
MLT 0.0 7.5 7.5 7.5 7.7 8.0 9.2 0.0 18.8 19.8 0.0
MLAT 0.00 16.47 33.08 45.28 56.02 65.57 78.00 0.00 61.09 -0.04 0.00 HRS
INVLAT 0.0 57.5 65.4 70.9 75.4 79.4 84.8 0.0 72.9 31.2 0.0 DEGS

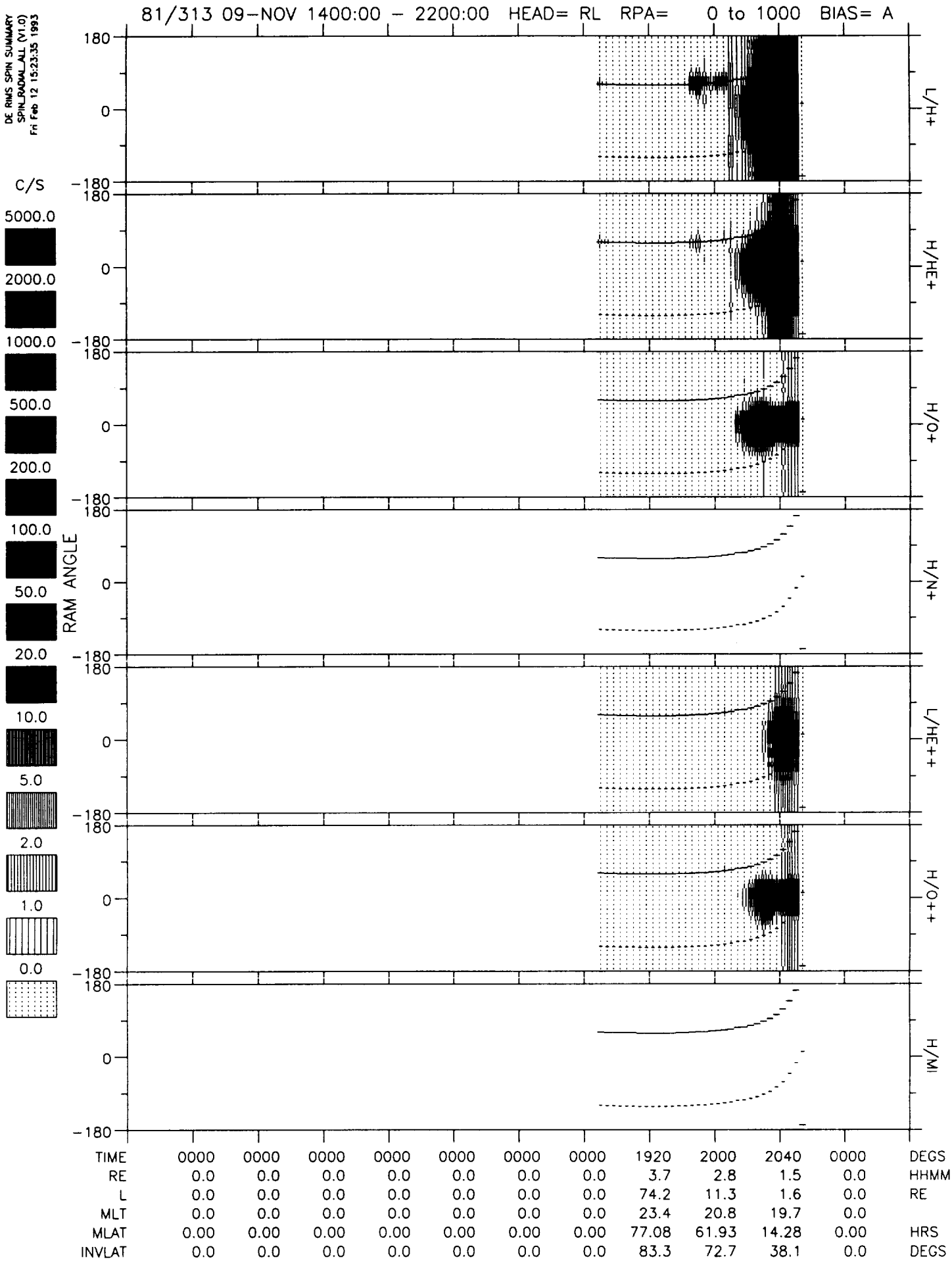

81/312 08-NOV 0400:00 - 1200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Feb 12 15:08:35 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0520 0600 0640 0000 0000 0000 0920 1000 0000 0000 DEGS
RE 0.0 3.4 4.1 4.5 0.0 0.0 0.0 3.5 2.4 0.0 0.0 HHMM
L 0.0 4.3 8.1 16.0 0.0 0.0 0.0 17.8 3.7 0.0 0.0 RE
MLT 0.0 8.4 8.8 9.3 0.0 0.0 0.0 19.0 19.7 0.0 0.0
MLAT 0.00 28.17 45.39 58.66 0.00 0.00 0.00 62.61 35.66 0.00 0.00 HRS
INVLAT 0.0 61.3 69.4 75.5 0.0 0.0 0.0 76.3 58.7 0.0 0.0 DEGS

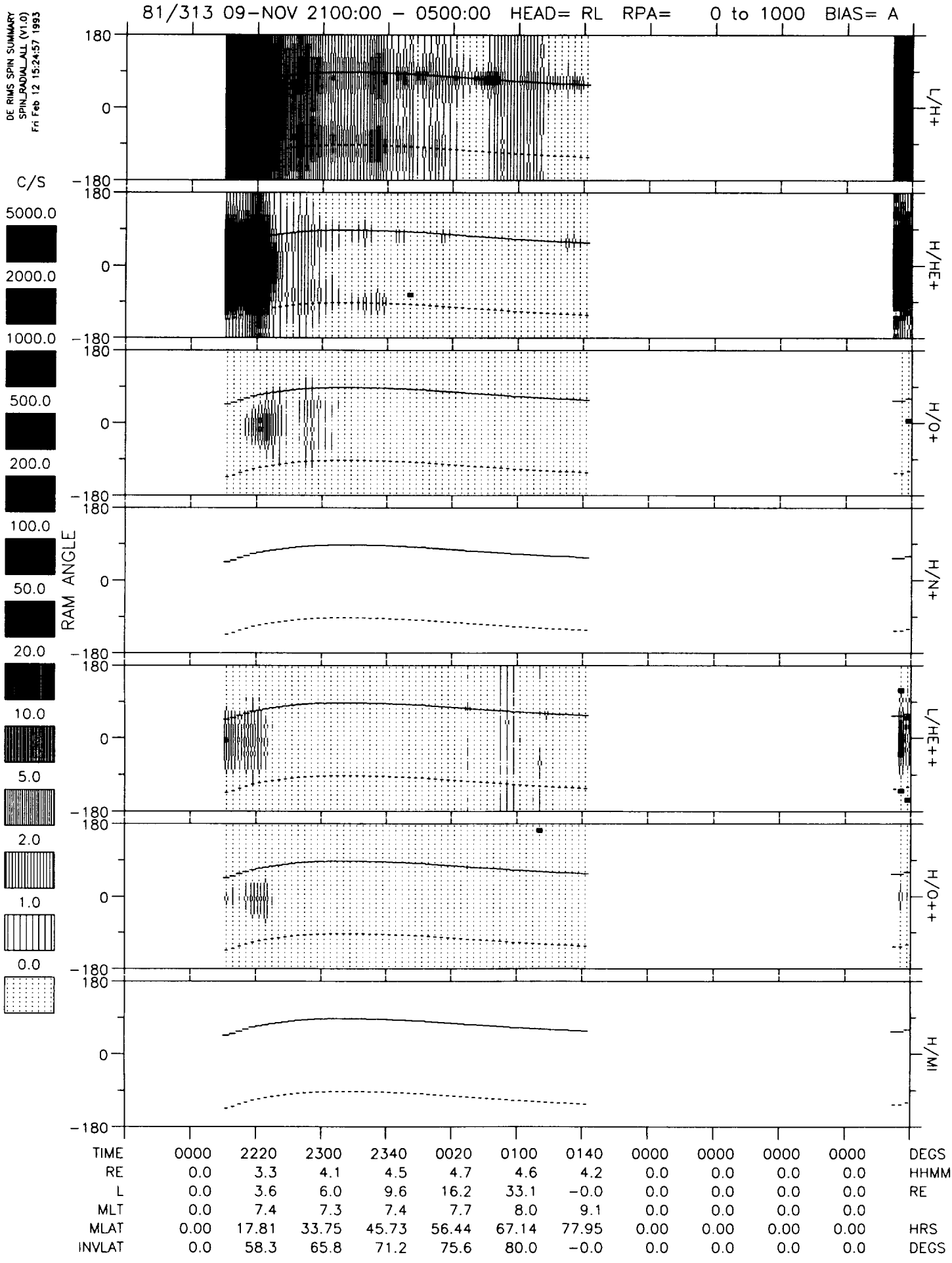

81/312 08-NOV 1115:00 - 1915:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Feb 12 15:12:53 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 1235 1315 1355 1435 1515 1555 1635 0000 0000 0000 DEGS
RE 0.0 3.9 4.4 4.6 4.6 4.3 3.8 2.9 0.0 0.0 0.0 HHMM
L 0.0 10.5 24.6 66.9 100.0 100.0 36.6 7.9 0.0 0.0 0.0 RE
MLT 0.0 7.9 7.5 6.6 4.2 23.8 21.8 20.8 0.0 0.0 0.0
MLAT 0.00 52.74 65.27 74.89 81.75 80.37 70.48 52.84 0.00 0.00 0.00 HRS
INVLAT 0.0 72.0 78.4 83.0 86.4 86.0 80.5 69.2 0.0 0.0 0.0 DEGS

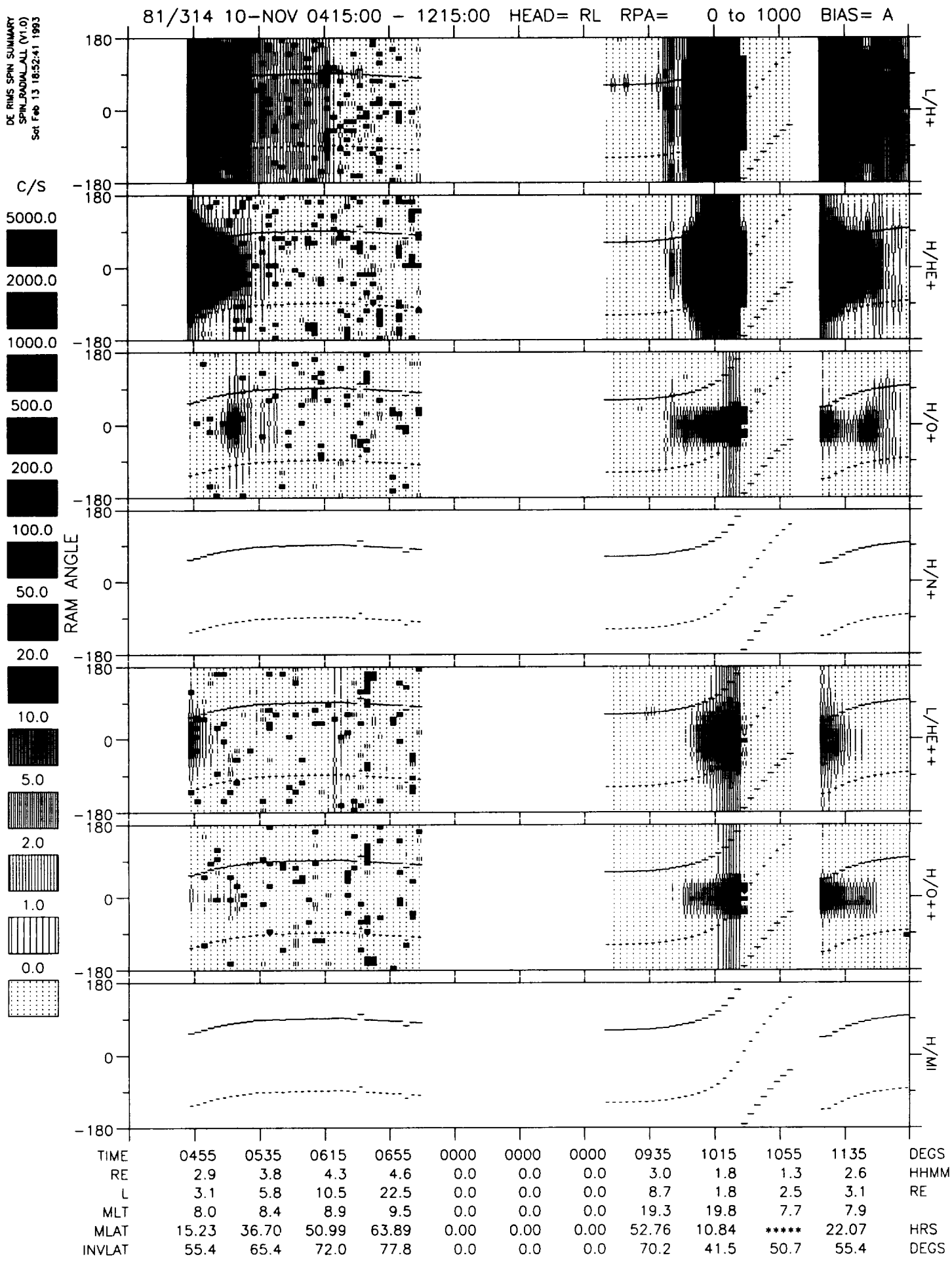

81/312 08-NOV 1730:00 - 0130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Feb 12 15:14:49 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 1930 2010 0000 0000 0000 0000 2330 0010 0000 DEGS
RE 0.0 0.0 4.0 4.4 0.0 0.0 0.0 0.0 2.8 1.5 0.0 HHMM
L 0.0 0.0 6.3 10.3 0.0 0.0 0.0 0.0 16.5 1.6 0.0 RE
MLT 0.0 0.0 7.1 6.9 0.0 0.0 0.0 0.0 19.8 19.5 0.0
MLAT 0.00 0.00 37.98 48.72 0.00 0.00 0.00 0.00 67.04 11.84 0.00 HRS
INVLAT 0.0 0.0 66.5 71.9 0.0 0.0 0.0 0.0 75.8 37.4 0.0 DEGS

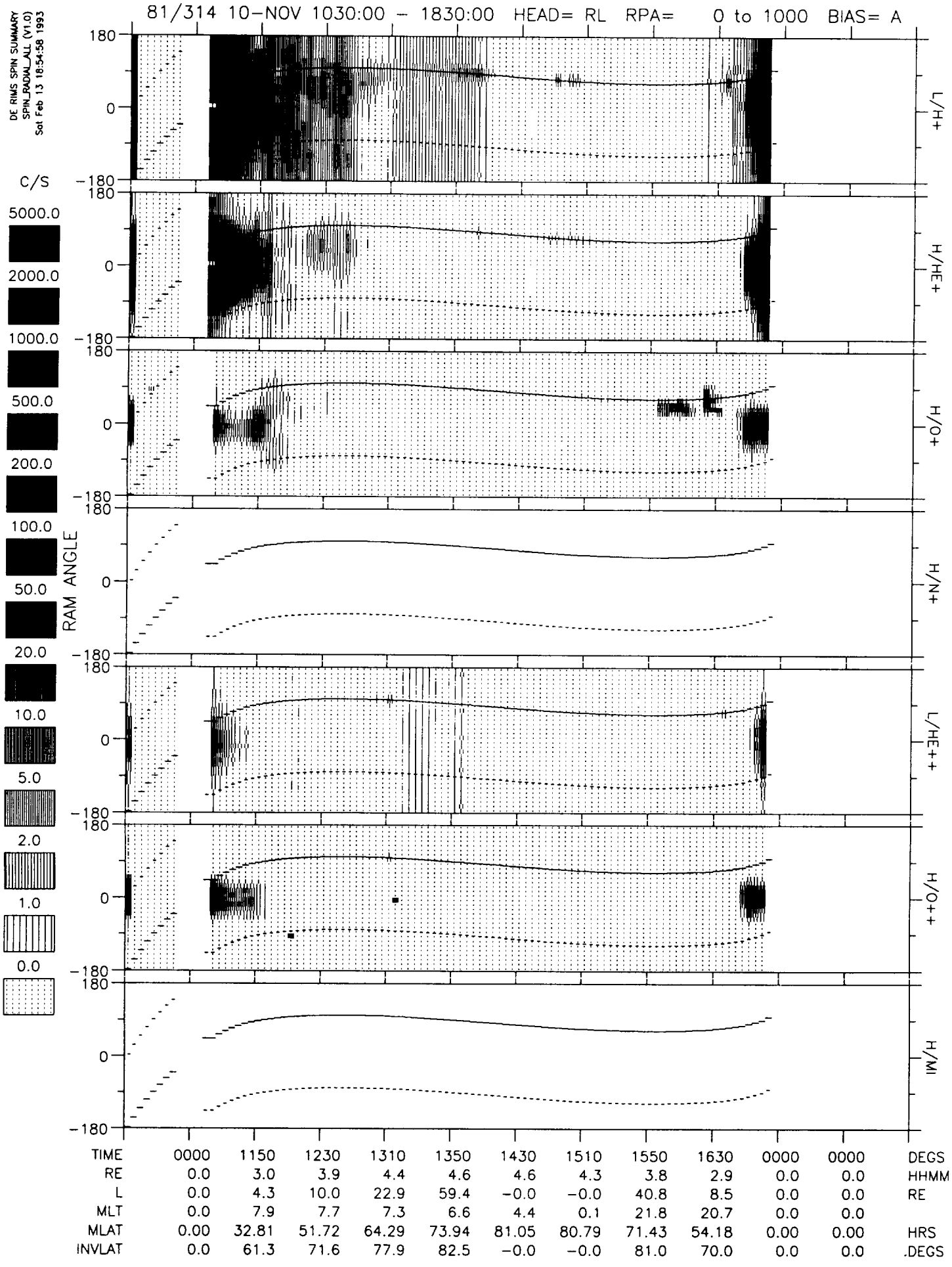

81/313 09-NOV 0030:00 - 0830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Feb 12 15:16:12 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0150 0230 0310 0350 0430 0000 0000 0630 0000 0000 DEGS
RE 0.0 3.4 4.1 4.5 4.7 4.6 0.0 0.0 2.5 0.0 0.0 HHMM
L 0.0 3.8 6.4 10.9 20.2 48.0 0.0 0.0 5.1 0.0 0.0 RE
MLT 0.0 7.8 8.0 8.4 9.0 10.1 0.0 0.0 19.1 0.0 0.0
MLAT 0.00 19.35 36.35 49.38 60.84 71.46 0.00 0.00 45.90 0.00 0.00 HRS
INVLAT 0.0 59.1 66.8 72.4 77.2 81.7 0.0 0.0 63.6 0.0 0.0 DEGS

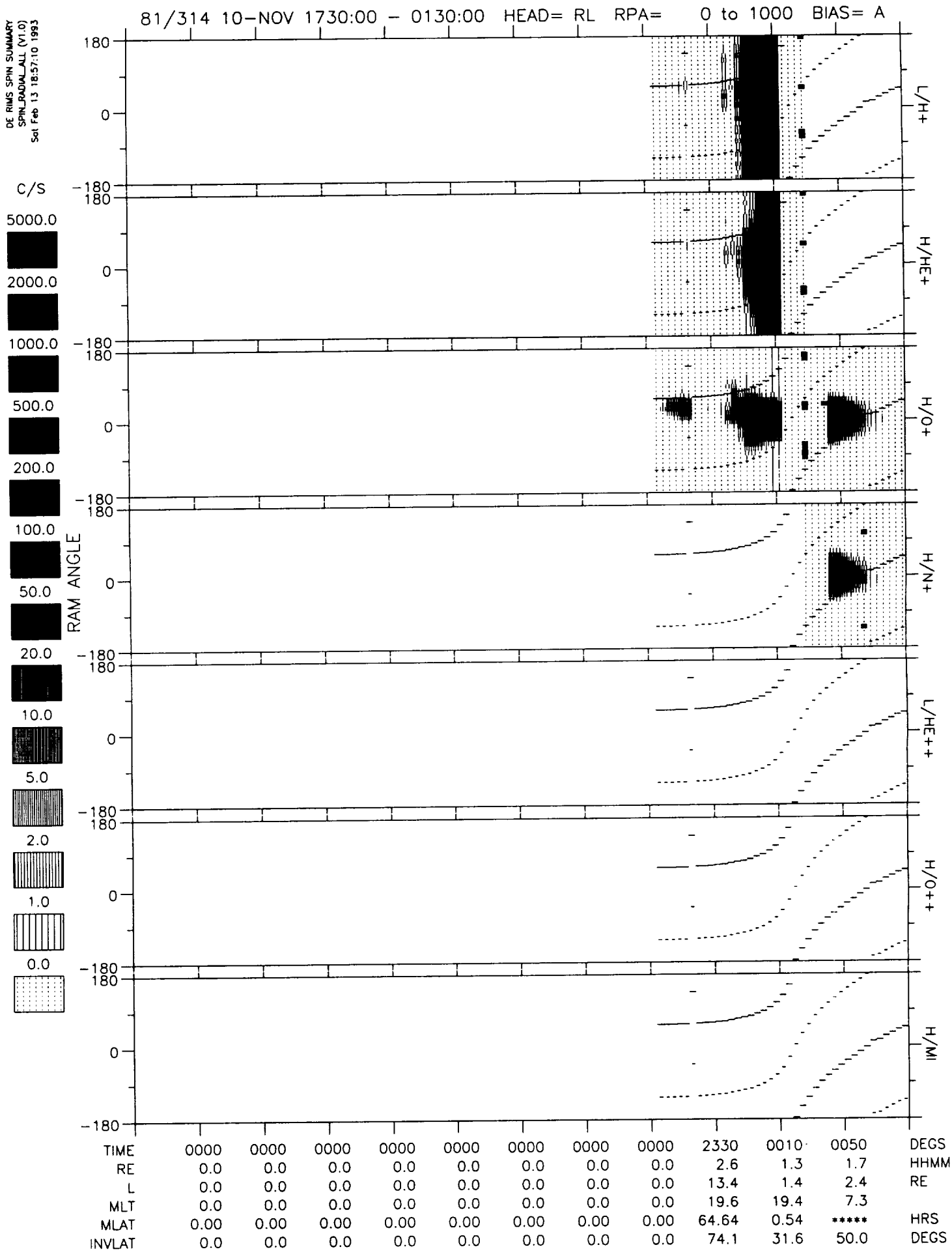

81/313 09-NOV 0715:00 - 1515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Feb 12 15:18:07 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0000 0835 0915 0955 0000 0000 0000 1235 1315 0000 0000 DEGS
RE 0.0 3.2 4.0 4.5 0.0 0.0 0.0 3.6 2.7 0.0 0.0 HHMM
L 0.0 4.4 9.7 23.1 0.0 0.0 0.0 22.5 5.2 0.0 0.0 RE
MLT 0.0 8.4 8.6 8.9 0.0 0.0 0.0 20.1 20.1 0.0 0.0
MLAT 0.00 33.14 51.63 65.29 0.00 0.00 0.00 64.99 42.45 0.00 0.00 HRS
INVLAT 0.0 61.6 71.3 78.0 0.0 0.0 0.0 77.8 63.9 0.0 0.0 DEGS

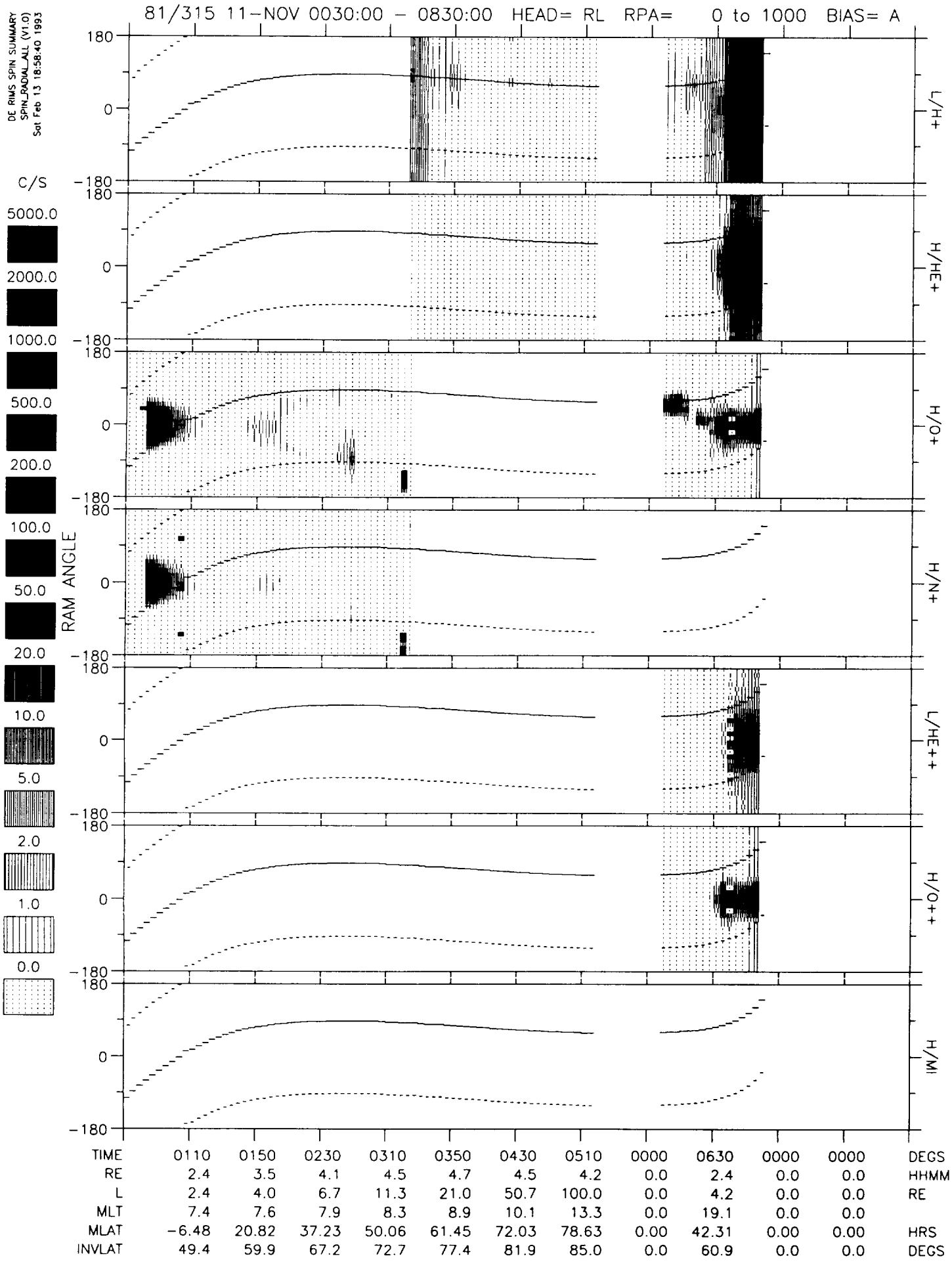

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Feb 12 15:23:35 1993
81/313 09-NOV 1400:00 - 2200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 1920 2000 2040 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.7 2.8 1.5 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 74.2 11.3 1.6 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 23.4 20.8 19.7 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 77.08 61.93 14.28 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 83.3 72.7 38.1 0.0 DEGS

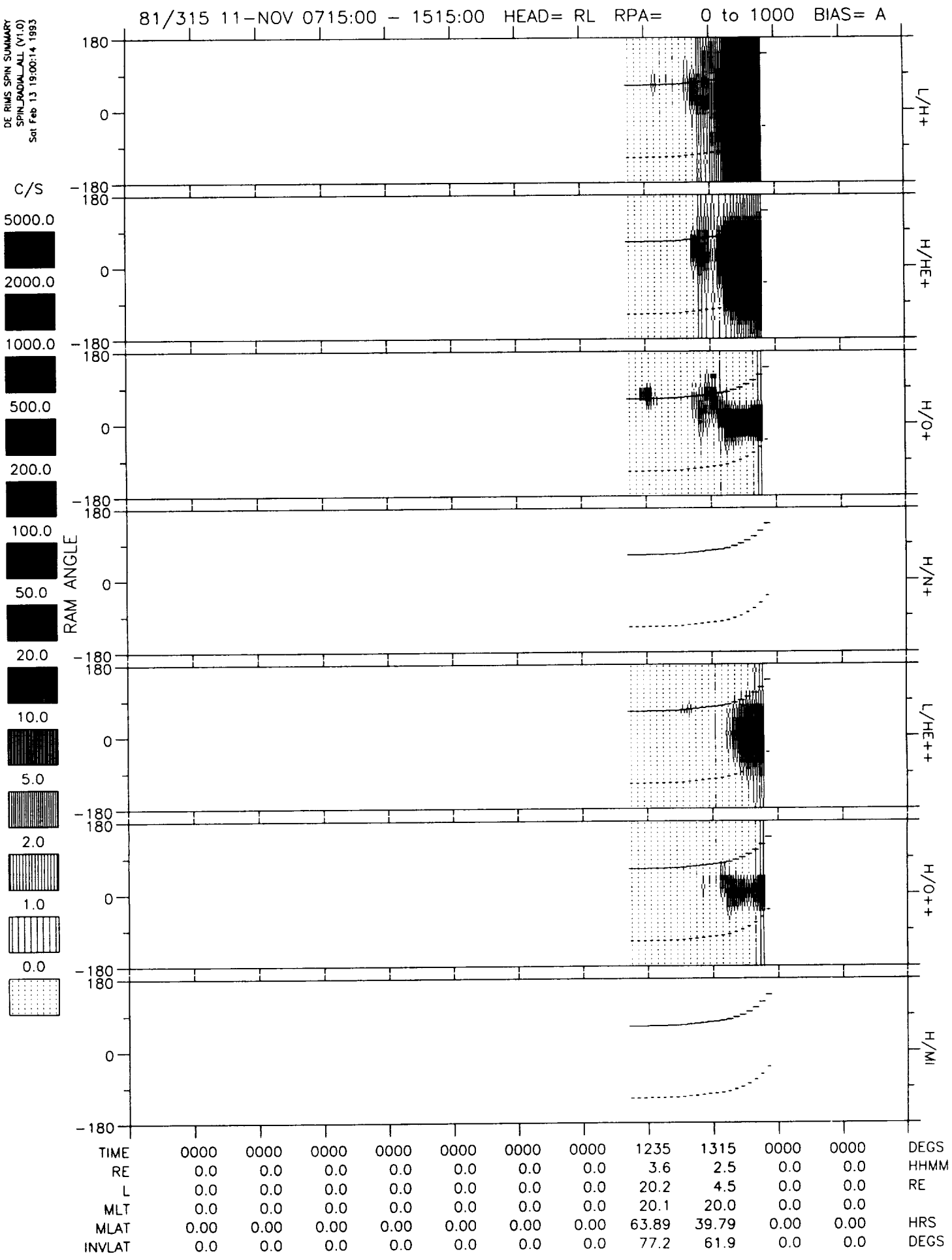

81/313 09-NOV 2100:00 - 0500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Fri Feb 12 15:24:57 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 2220 2300 2340 0020 0100 0140 0000 0000 0000 0000 DEGS
RE 0.0 3.3 4.1 4.5 4.7 4.6 4.2 0.0 0.0 0.0 0.0 HHMM
L 0.0 3.6 6.0 9.6 16.2 33.1 -0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 7.4 7.3 7.4 7.7 8.0 9.1 0.0 0.0 0.0 0.0
MLAT 0.00 17.81 33.75 45.73 56.44 67.14 77.95 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 58.3 65.8 71.2 75.6 80.0 -0.0 0.0 0.0 0.0 0.0 DEGS

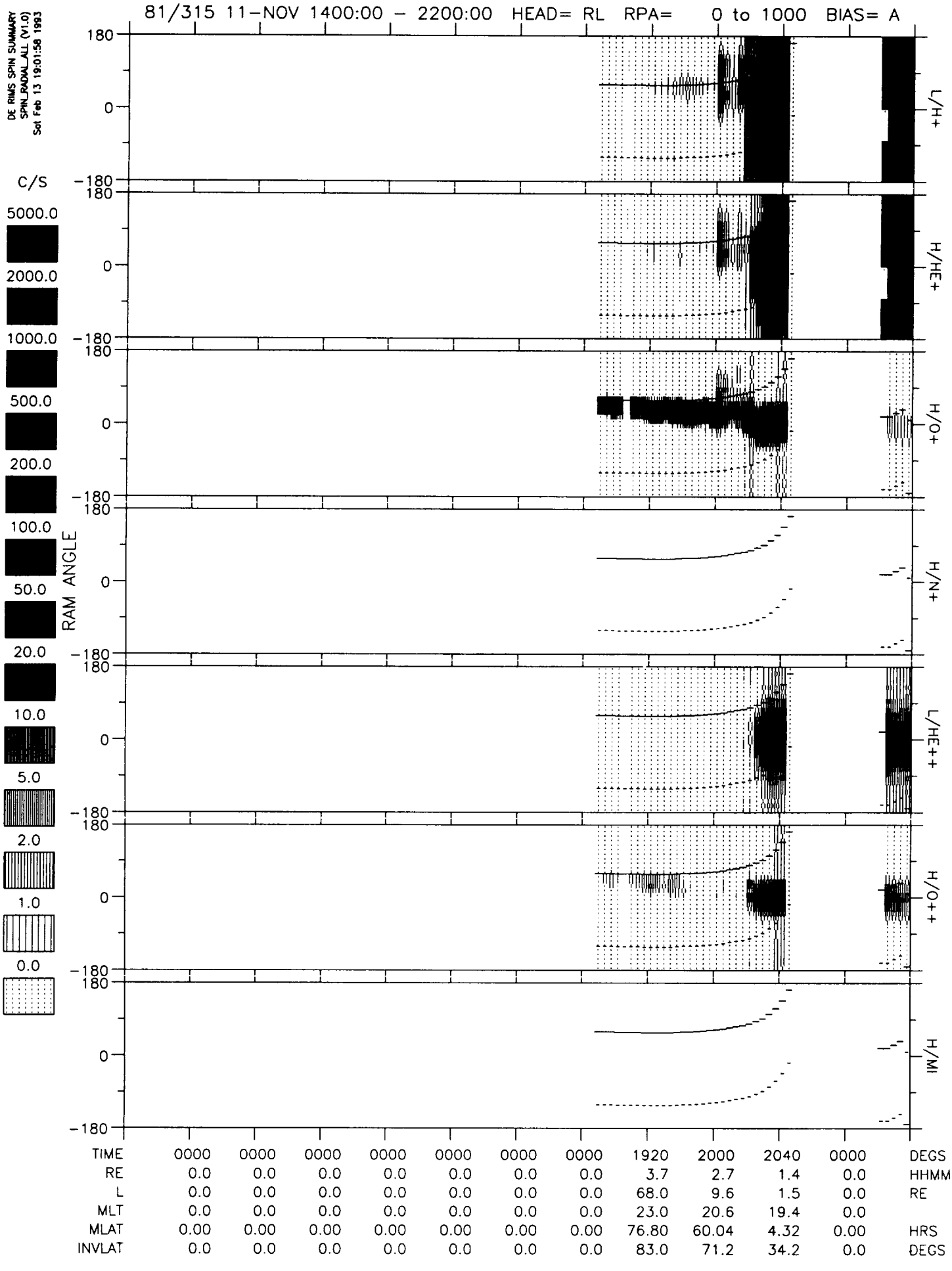

81/314 10-NOV 0415:00 - 1215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 18:52:41 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0455 0535 0615 0655 0000 0000 0000 0935 1015 1055 1135 DEGS
RE 2.9 3.8 4.3 4.6 0.0 0.0 0.0 3.0 1.8 1.3 2.6 HHMM
L 3.1 5.8 10.5 22.5 0.0 0.0 0.0 8.7 1.8 2.5 3.1 RE
MLT 8.0 8.4 8.9 9.5 0.0 0.0 0.0 19.3 19.8 7.7 7.9
MLAT 15.23 36.70 50.99 63.89 0.00 0.00 0.00 52.76 10.84 ***** 22.07 HRS
INVLAT 55.4 65.4 72.0 77.8 0.0 0.0 0.0 70.2 41.5 50.7 55.4 DEGS

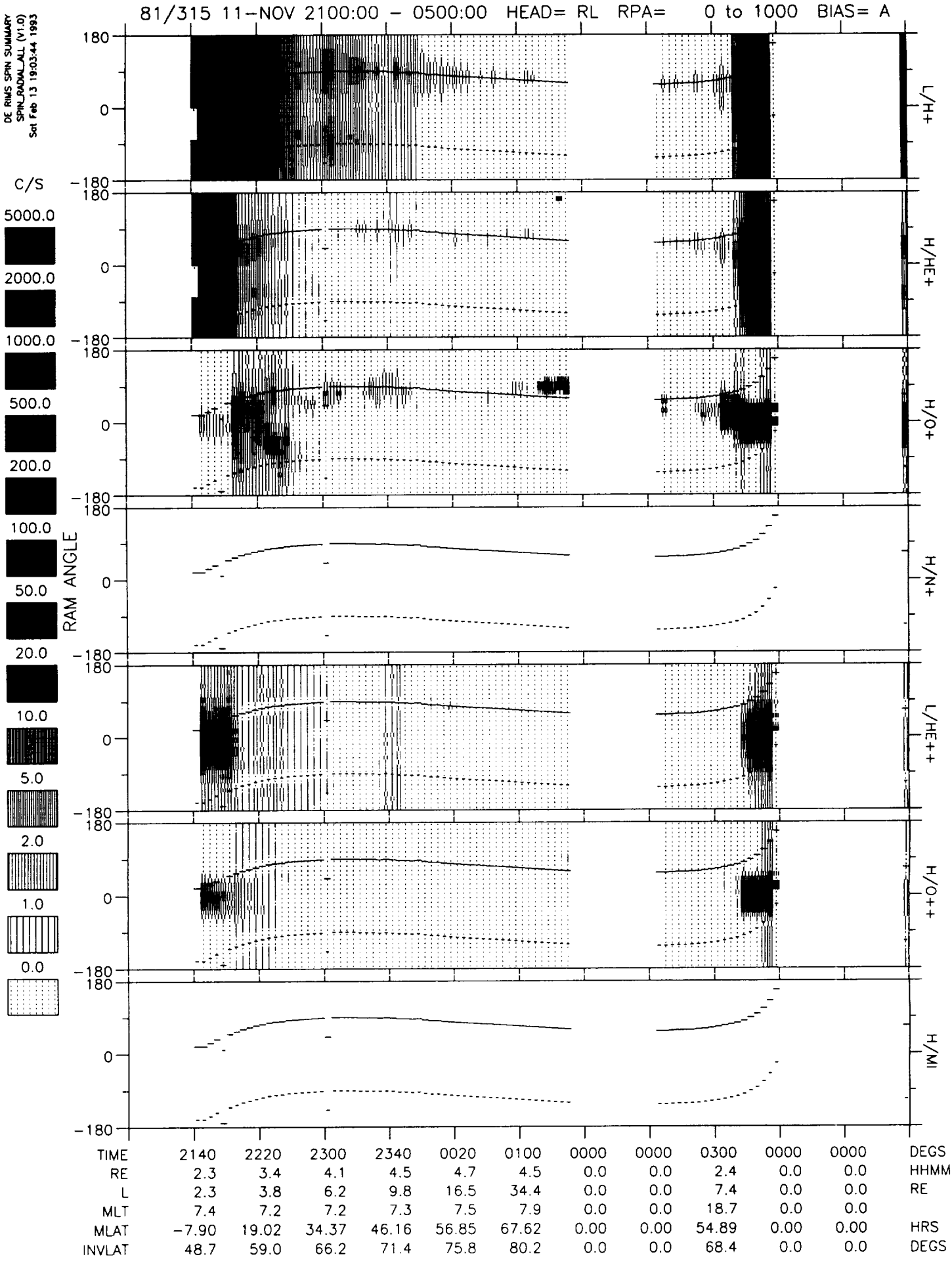

81/314 10-NOV 1030:00 - 1830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 18:54:58 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1150 1230 1310 1350 1430 1510 1550 1630 0000 0000 DEGS
RE 0.0 3.0 3.9 4.4 4.6 4.6 4.3 3.8 2.9 0.0 0.0 HHMM
L 0.0 4.3 10.0 22.9 59.4 -0.0 -0.0 40.8 8.5 0.0 0.0 RE
MLT 0.0 7.9 7.7 7.3 6.6 4.4 0.1 21.8 20.7 0.0 0.0
MLAT 0.00 32.81 51.72 64.29 73.94 81.05 80.79 71.43 54.18 0.00 0.00 HRS
INVLAT 0.0 61.3 71.6 77.9 82.5 -0.0 -0.0 81.0 70.0 0.0 0.0 .DEGS

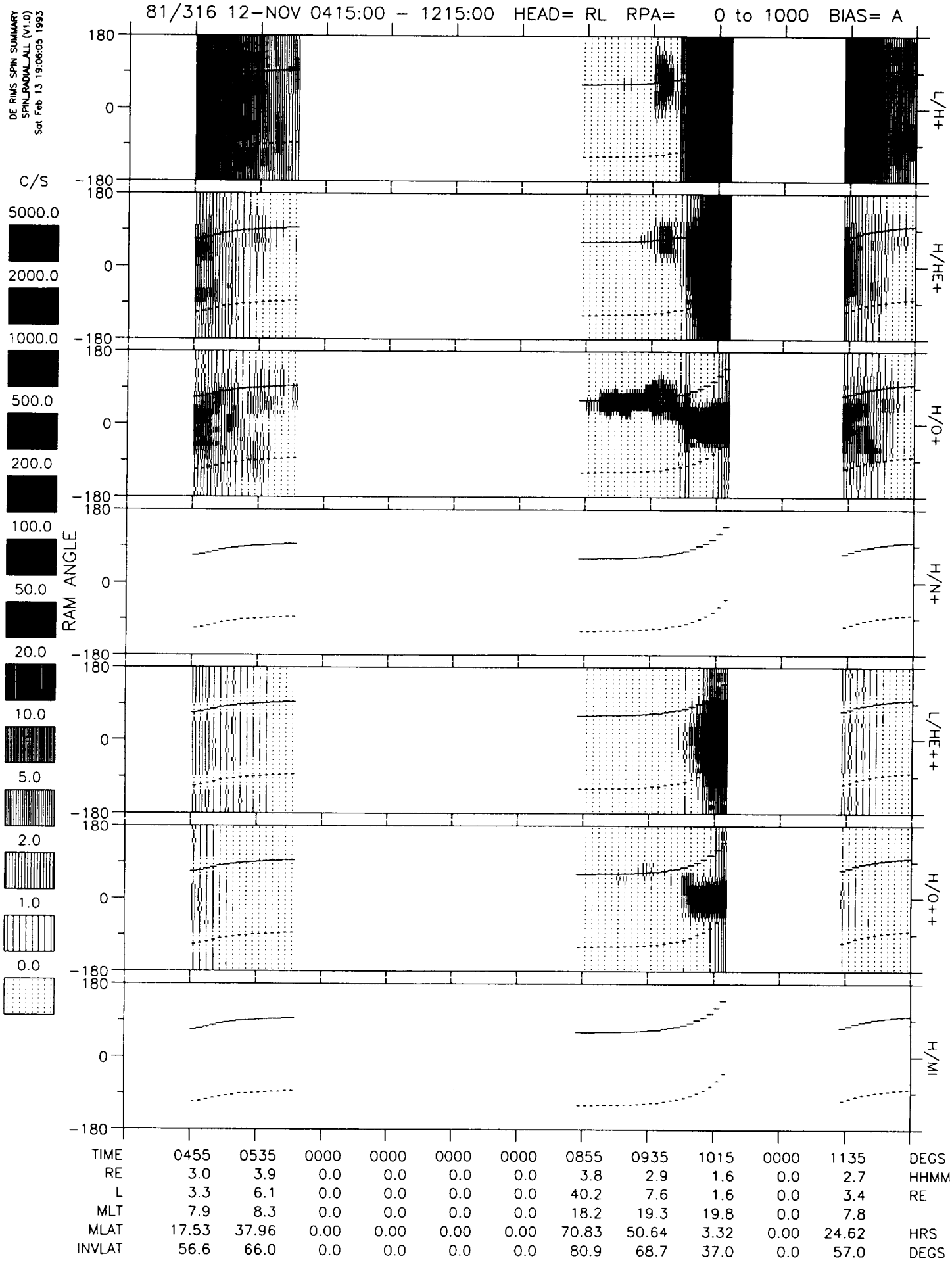

81/314 10-NOV 1730:00 - 0130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 18:57:10 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 2330 0010 0050 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.6 1.3 1.7 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 13.4 1.4 2.4 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 19.6 19.4 7.3
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 64.64 0.54 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 74.1 31.6 50.0 DEGS

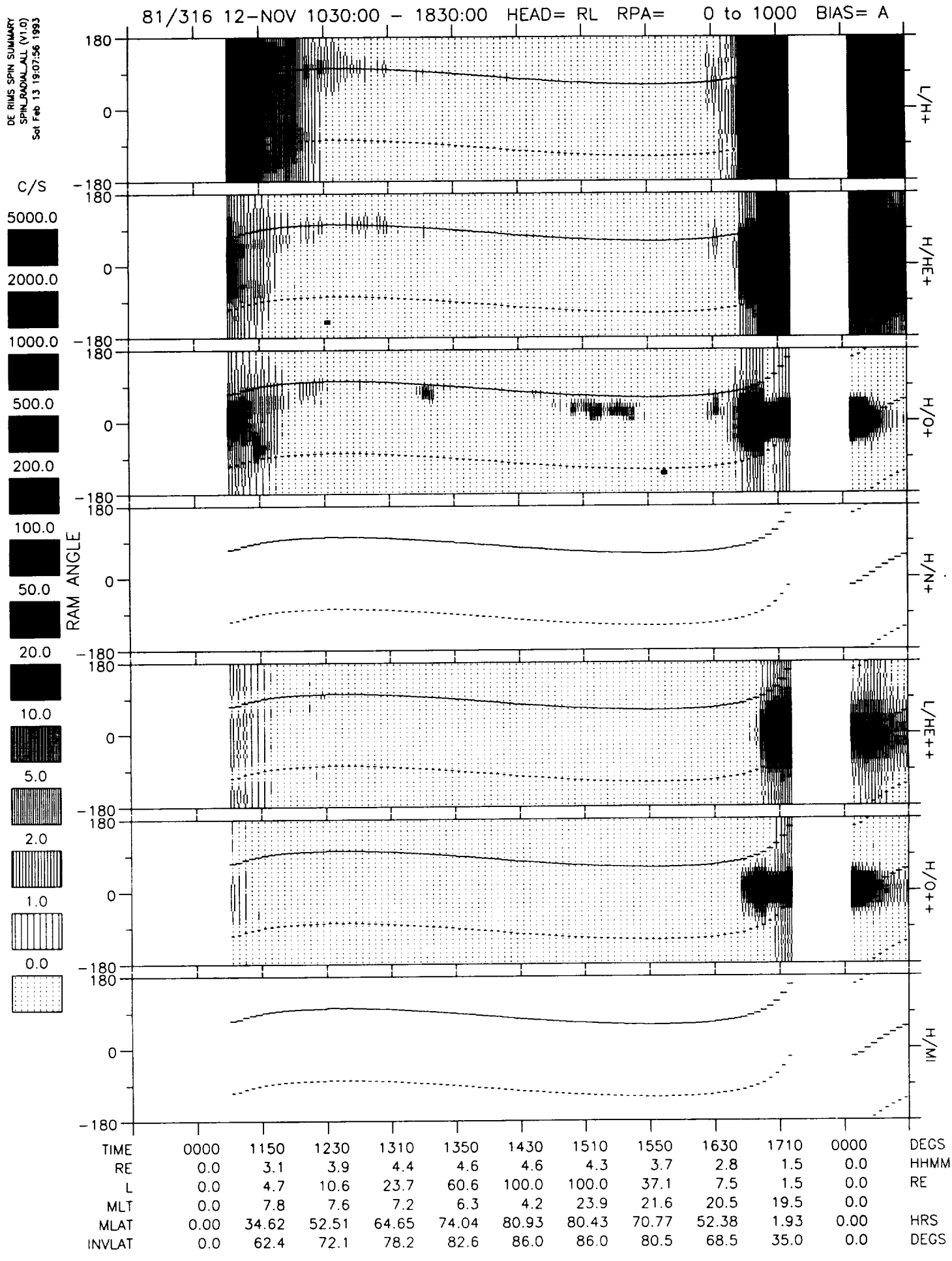

81/315 11-NOV 0030:00 - 0830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 18:58:40 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0110 0150 0230 0310 0350 0430 0510 0000 0630 0000 0000 DEGS
RE 2.4 3.5 4.1 4.5 4.7 4.5 4.2 0.0 2.4 0.0 0.0 HHMM
L 2.4 4.0 6.7 11.3 21.0 50.7 100.0 0.0 4.2 0.0 0.0 RE
MLT 7.4 7.6 7.9 8.3 8.9 10.1 13.3 0.0 19.1 0.0 0.0
MLAT -6.48 20.82 37.23 50.06 61.45 72.03 78.63 0.00 42.31 0.00 0.00 HRS
INVLAT 49.4 59.9 67.2 72.7 77.4 81.9 85.0 0.0 60.9 0.0 0.0 DEGS

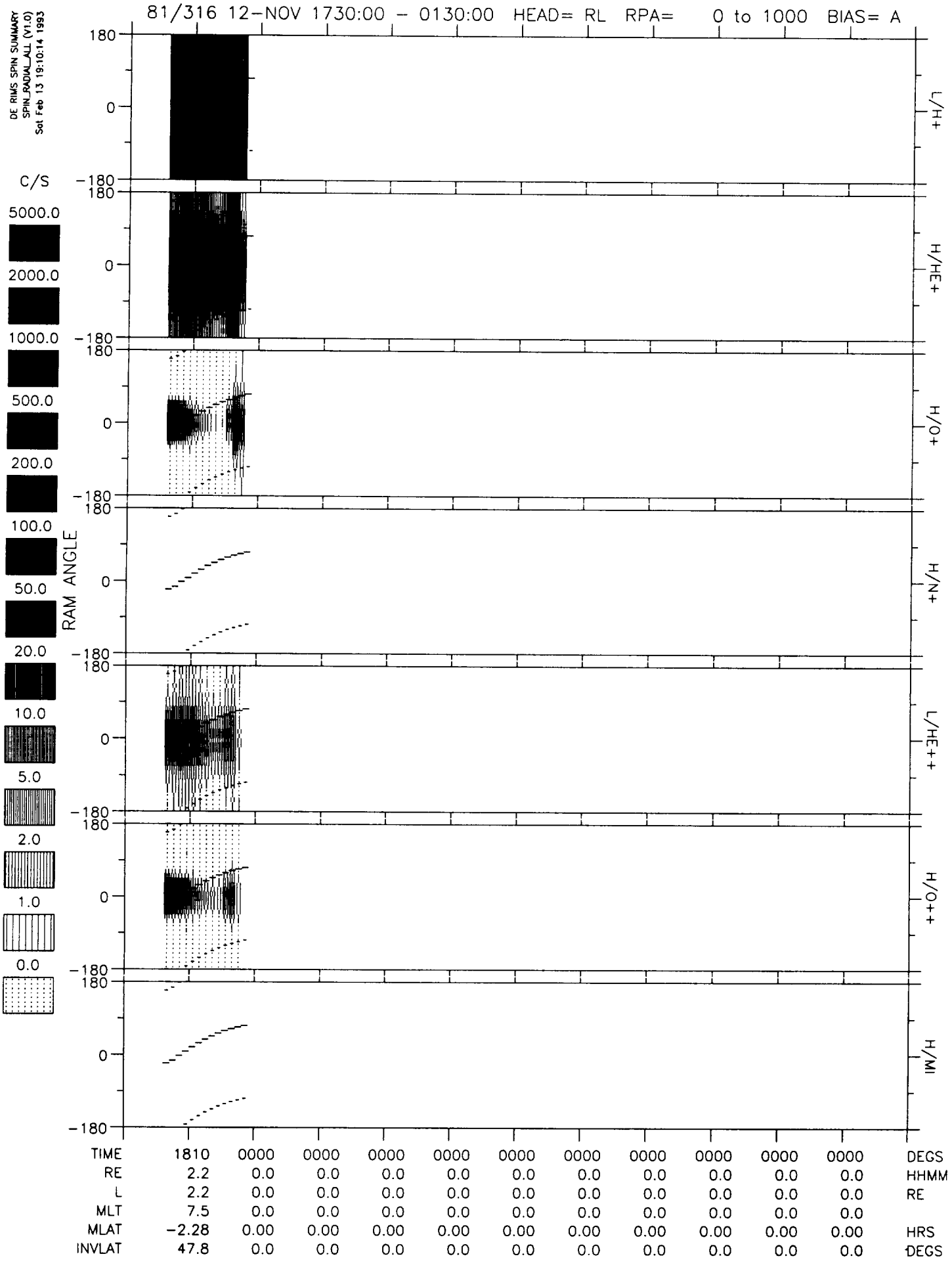

81/315 11-NOV 0715:00 - 1515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:00:14 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 1235 1315 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.6 2.5 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 20.2 4.5 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 20.1 20.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 63.89 39.79 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 77.2 61.9 0.0 0.0 DEGS

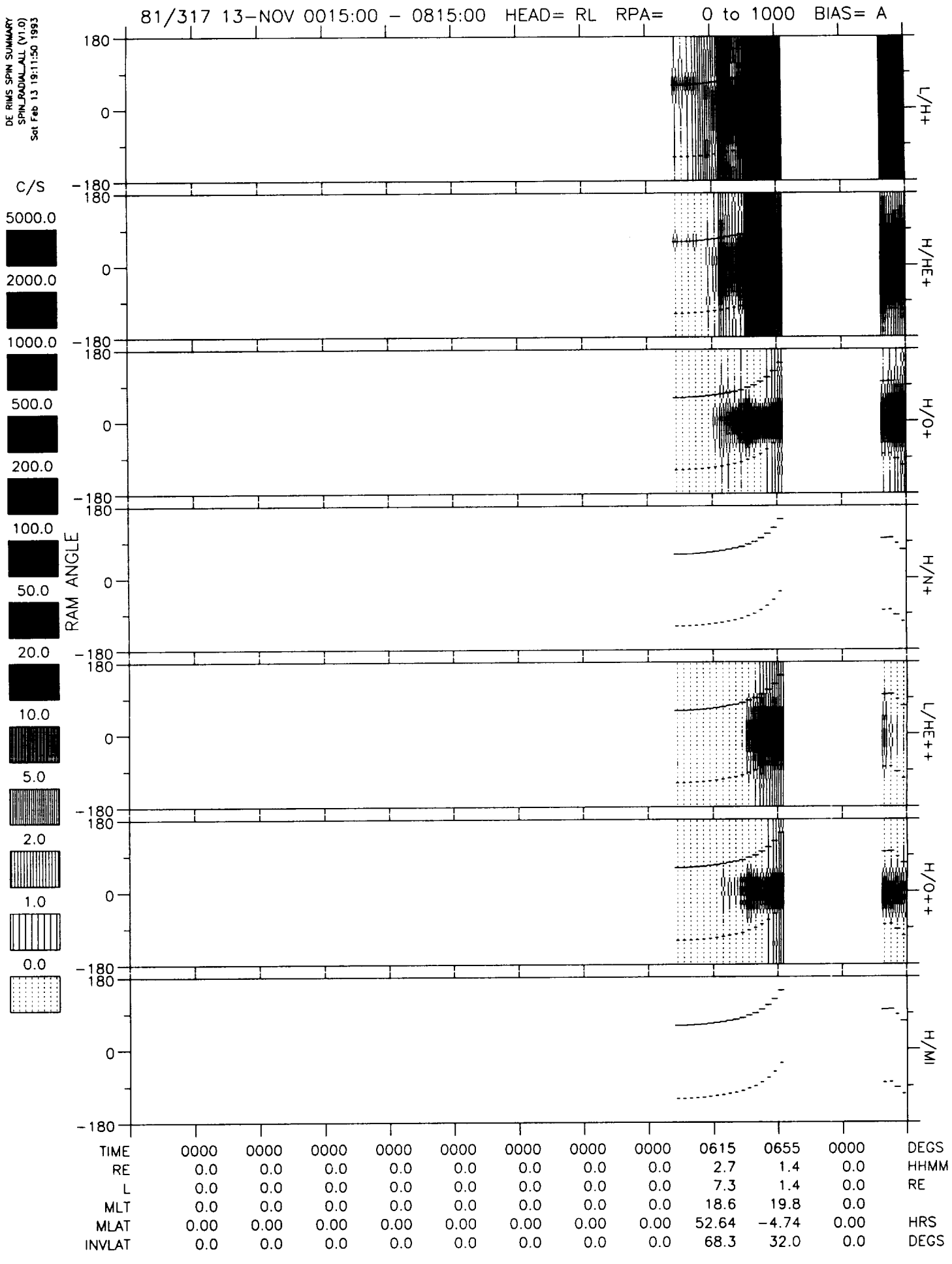

81/315 11-NOV 1400:00 - 2200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:01:58 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 1920 2000 2040 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.7 2.7 1.4 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 68.0 9.6 1.5 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 23.0 20.6 19.4 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 76.80 60.04 4.32 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 83.0 71.2 34.2 0.0 DEGS

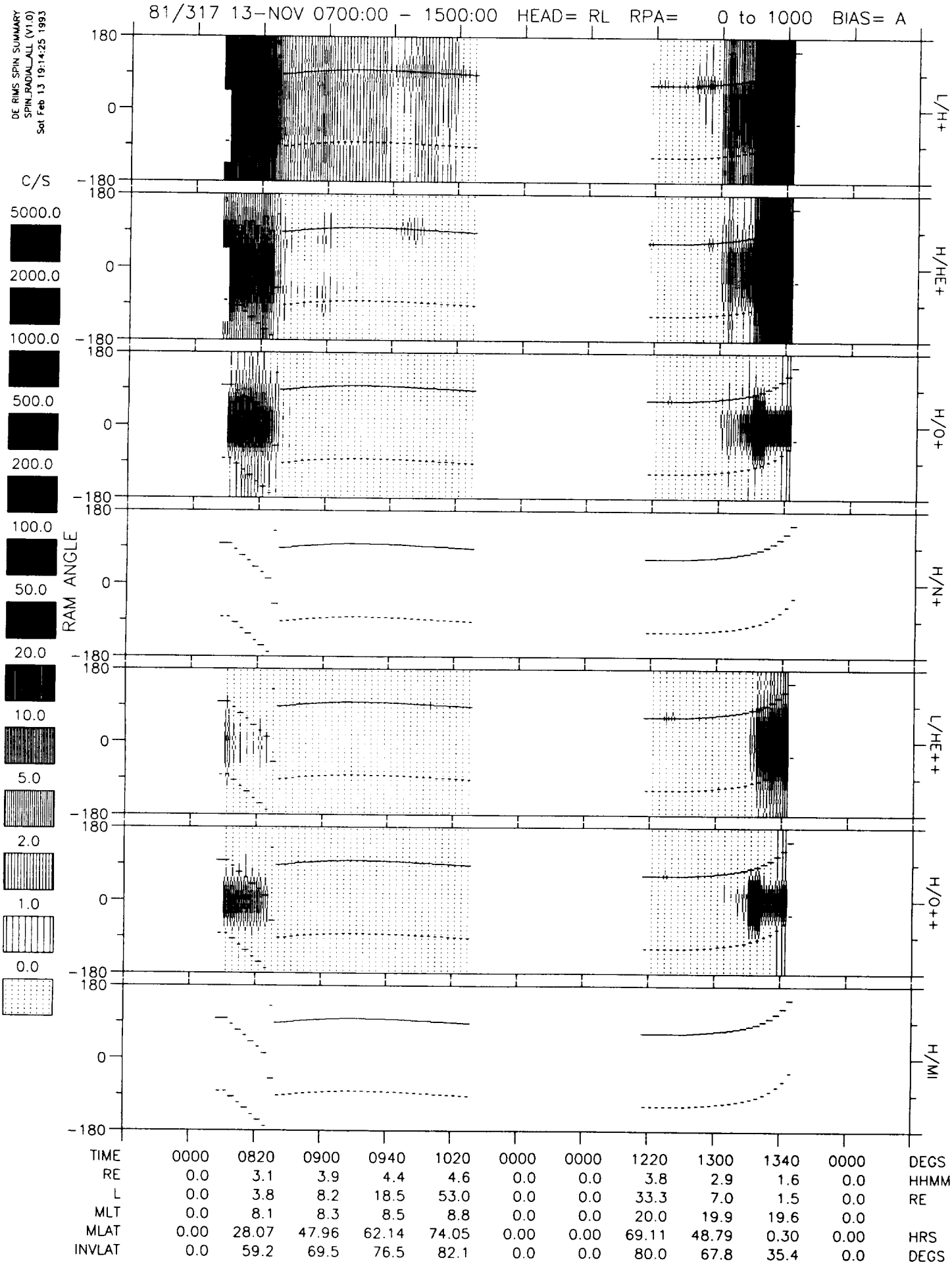

81/315 11-NOV 2100:00 - 0500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:03:44 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2140 2220 2300 2340 0020 0100 0000 0000 0300 0000 0000 DEGS
RE 2.3 3.4 4.1 4.5 4.7 4.5 0.0 0.0 2.4 0.0 0.0 HHMM
L 2.3 3.8 6.2 9.8 16.5 34.4 0.0 0.0 7.4 0.0 0.0 RE
MLT 7.4 7.2 7.2 7.3 7.5 7.9 0.0 0.0 18.7 0.0 0.0
MLAT -7.90 19.02 34.37 46.16 56.85 67.62 0.00 0.00 54.89 0.00 0.00 HRS
INVLAT 48.7 59.0 66.2 71.4 75.8 80.2 0.0 0.0 68.4 0.0 0.0 DEGS

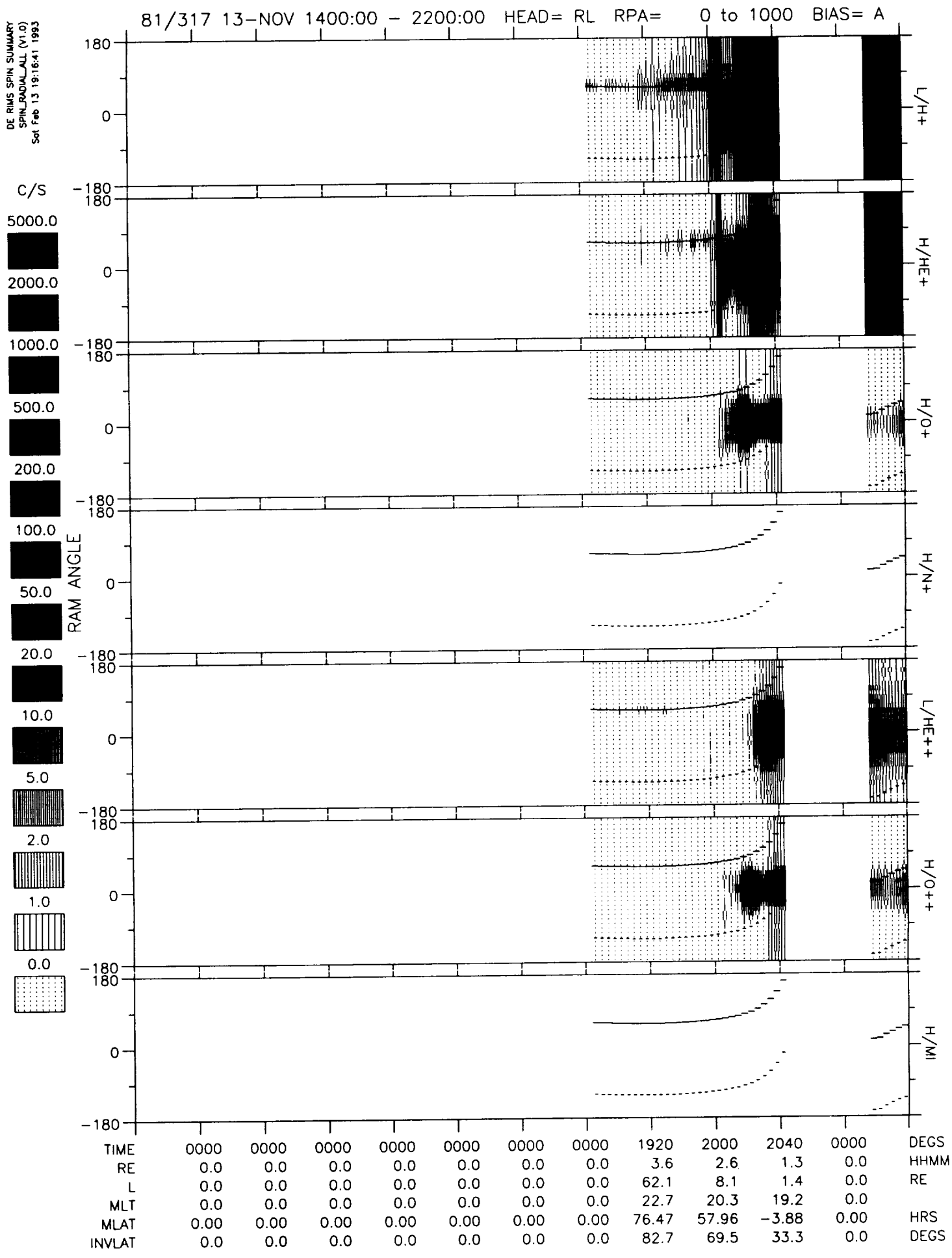

81/316 12-NOV 0415:00 - 1215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:06:05 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0455 0535 0000 0000 0000 0000 0855 0935 1015 0000 1135 DEGS
RE 3.0 3.9 0.0 0.0 0.0 0.0 3.8 2.9 1.6 0.0 2.7 HHMM
L 3.3 6.1 0.0 0.0 0.0 0.0 40.2 7.6 1.6 0.0 3.4 RE
MLT 7.9 8.3 0.0 0.0 0.0 0.0 18.2 19.3 19.8 0.0 7.8
MLAT 17.53 37.96 0.00 0.00 0.00 0.00 70.83 50.64 3.32 0.00 24.62 HRS
INVLAT 56.6 66.0 0.0 0.0 0.0 0.0 80.9 68.7 37.0 0.0 57.0 DEGS

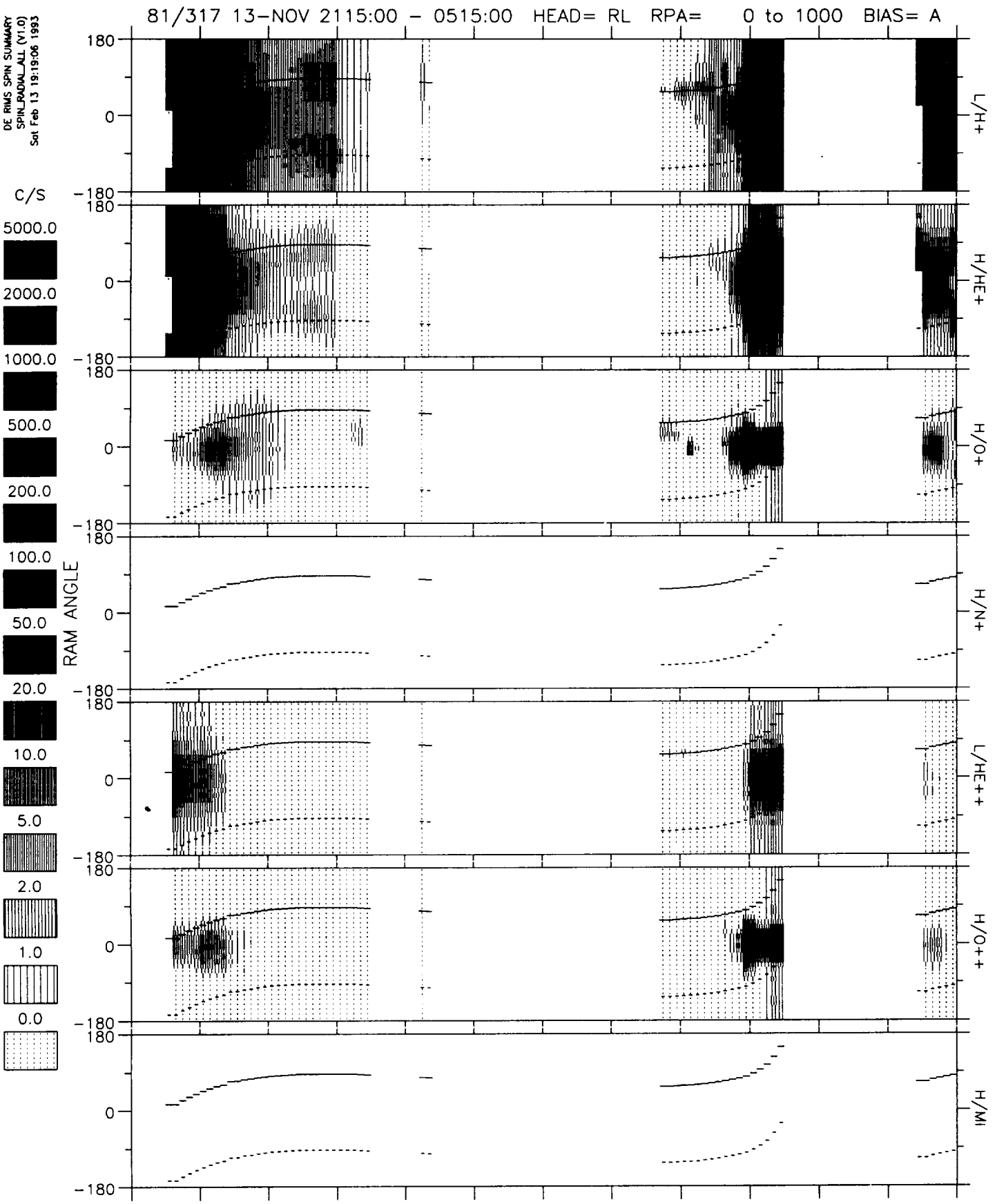

81/316 12-NOV 1030:00 - 1830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:07:56 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1150 1230 1310 1350 1430 1510 1550 1630 1710 0000 DEGS
RE 0.0 3.1 3.9 4.4 4.6 4.6 4.3 3.7 2.8 1.5 0.0 HHMM
L 0.0 4.7 10.6 23.7 60.6 100.0 100.0 37.1 7.5 1.5 0.0 RE
MLT 0.0 7.8 7.6 7.2 6.3 4.2 23.9 21.6 20.5 19.5 0.0
MLAT 0.00 34.62 52.51 64.65 74.04 80.93 80.43 70.77 52.38 1.93 0.00 HRS
INVLAT 0.0 62.4 72.1 78.2 82.6 86.0 86.0 80.5 68.5 35.0 0.0 DEGS

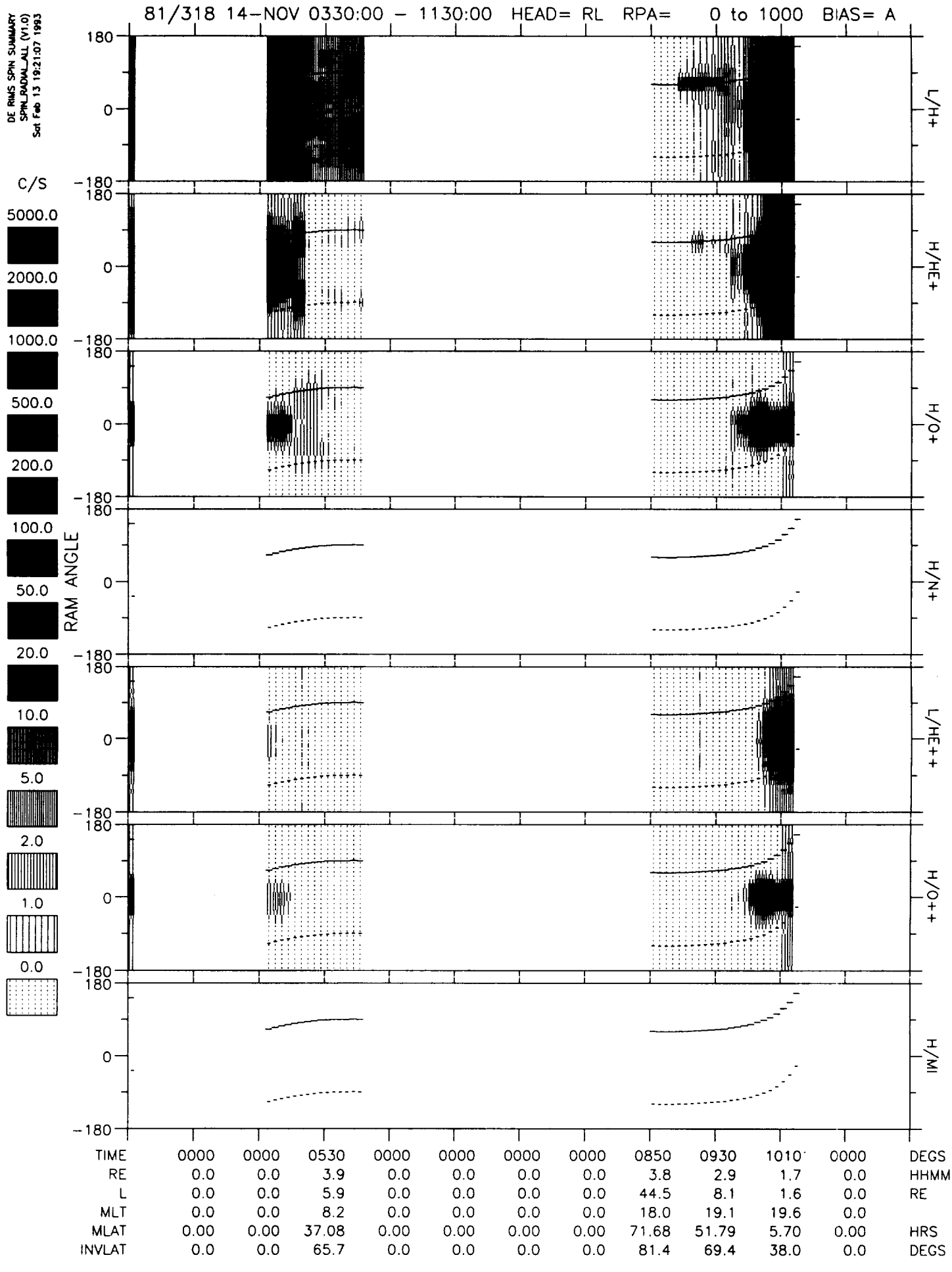

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:10:14 1993
81/316 12-NOV 1730:00 - 0130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1810 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 2.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 2.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 7.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT -2.28 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 47.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

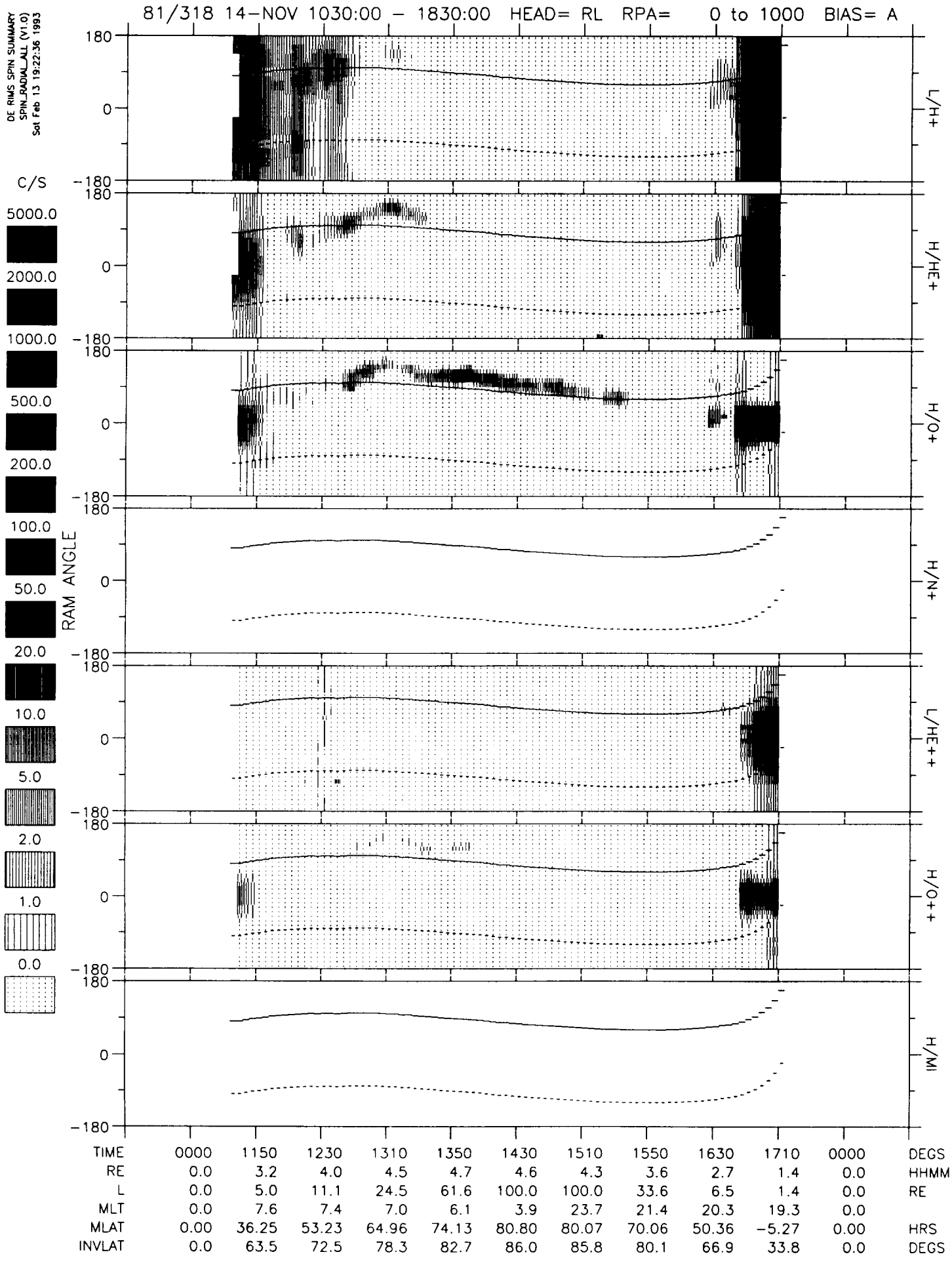

81/317 13-NOV 0015:00 - 0815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:11:50 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0615 0655 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.7 1.4 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 7.3 1.4 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 18.6 19.8 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 52.64 -4.74 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 68.3 32.0 0.0 DEGS

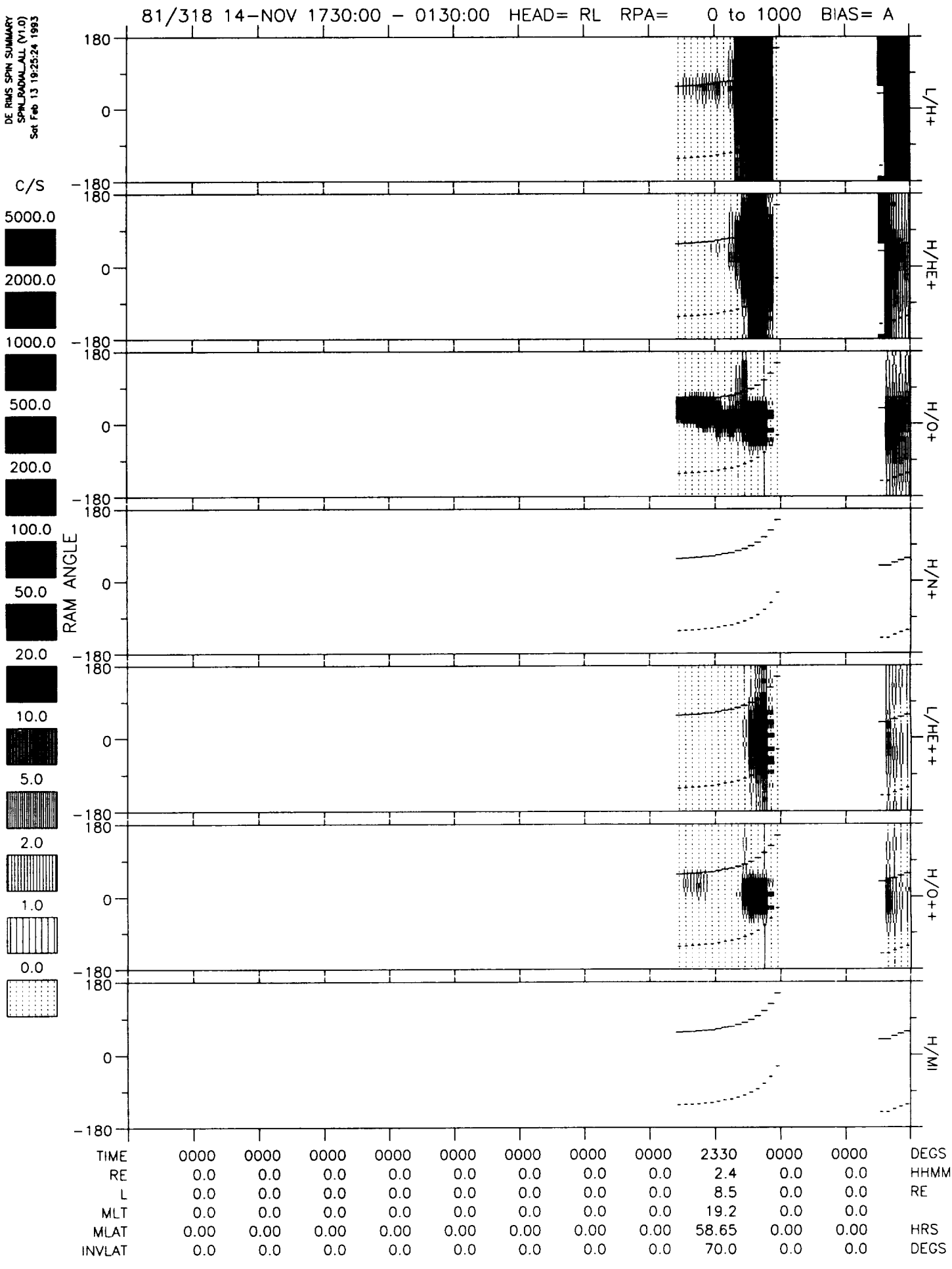

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:14:25 1993
81/317 13-NOV 0700:00 - 1500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0820 0900 0940 1020 0000 0000 1220 1300 1340 0000 DEGS
RE 0.0 3.1 3.9 4.4 4.6 0.0 0.0 3.8 2.9 1.6 0.0 HHMM
L 0.0 3.8 8.2 18.5 53.0 0.0 0.0 33.3 7.0 1.5 0.0 RE
MLT 0.0 8.1 8.3 8.5 8.8 0.0 0.0 20.0 19.9 19.6 0.0
MLAT 0.00 28.07 47.96 62.14 74.05 0.00 0.00 69.11 48.79 0.30 0.00 HRS
INVLAT 0.0 59.2 69.5 76.5 82.1 0.0 0.0 80.0 67.8 35.4 0.0 DEGS

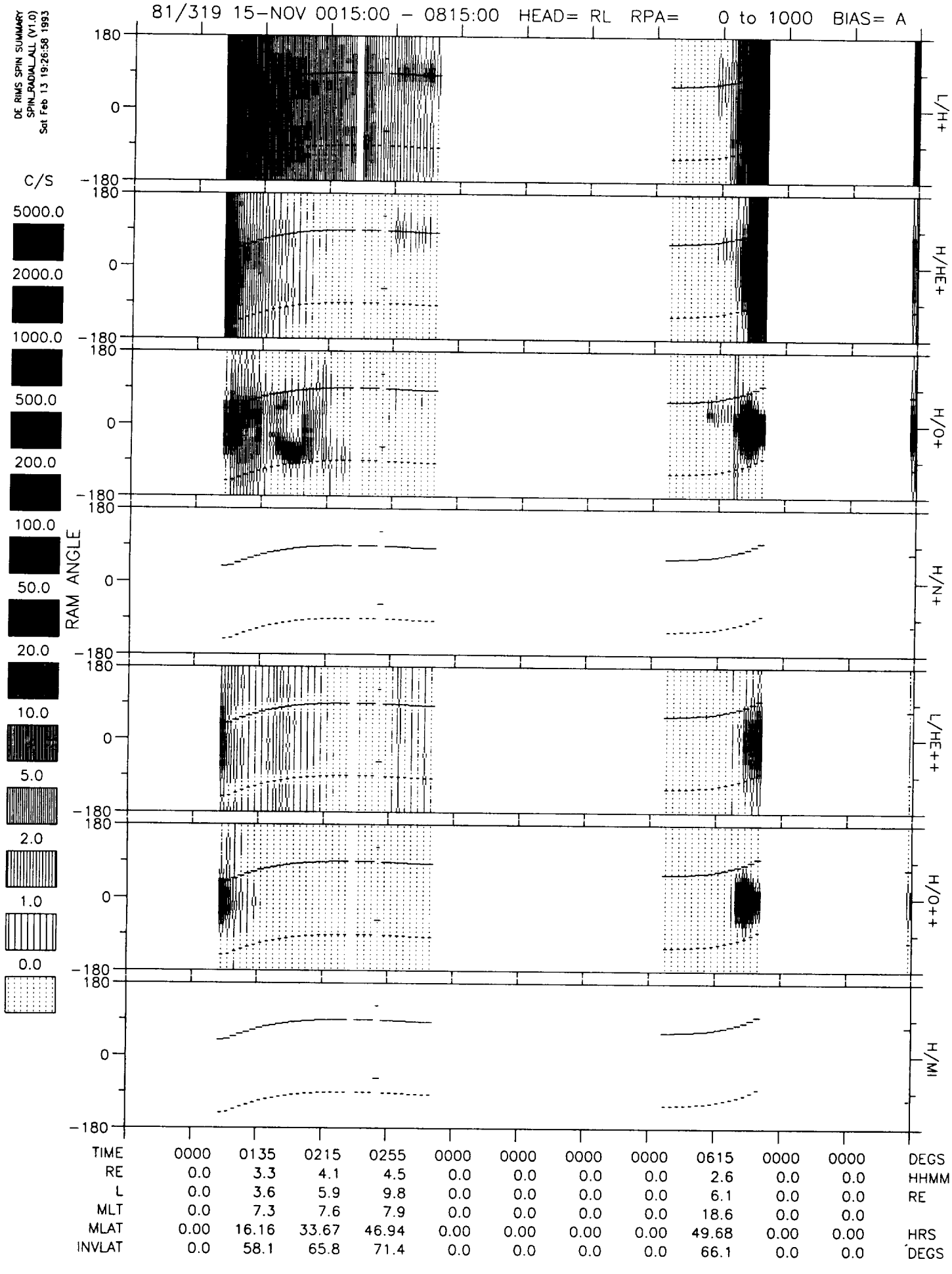

81/317 13-NOV 1400:00 - 2200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:16:41 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0000 0000 0000 0000 1920 2000 2040 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.6 2.6 1.3 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 62.1 8.1 1.4 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 22.7 20.3 19.2 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 76.47 57.96 -3.88 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 82.7 69.5 33.3 0.0 DEGS

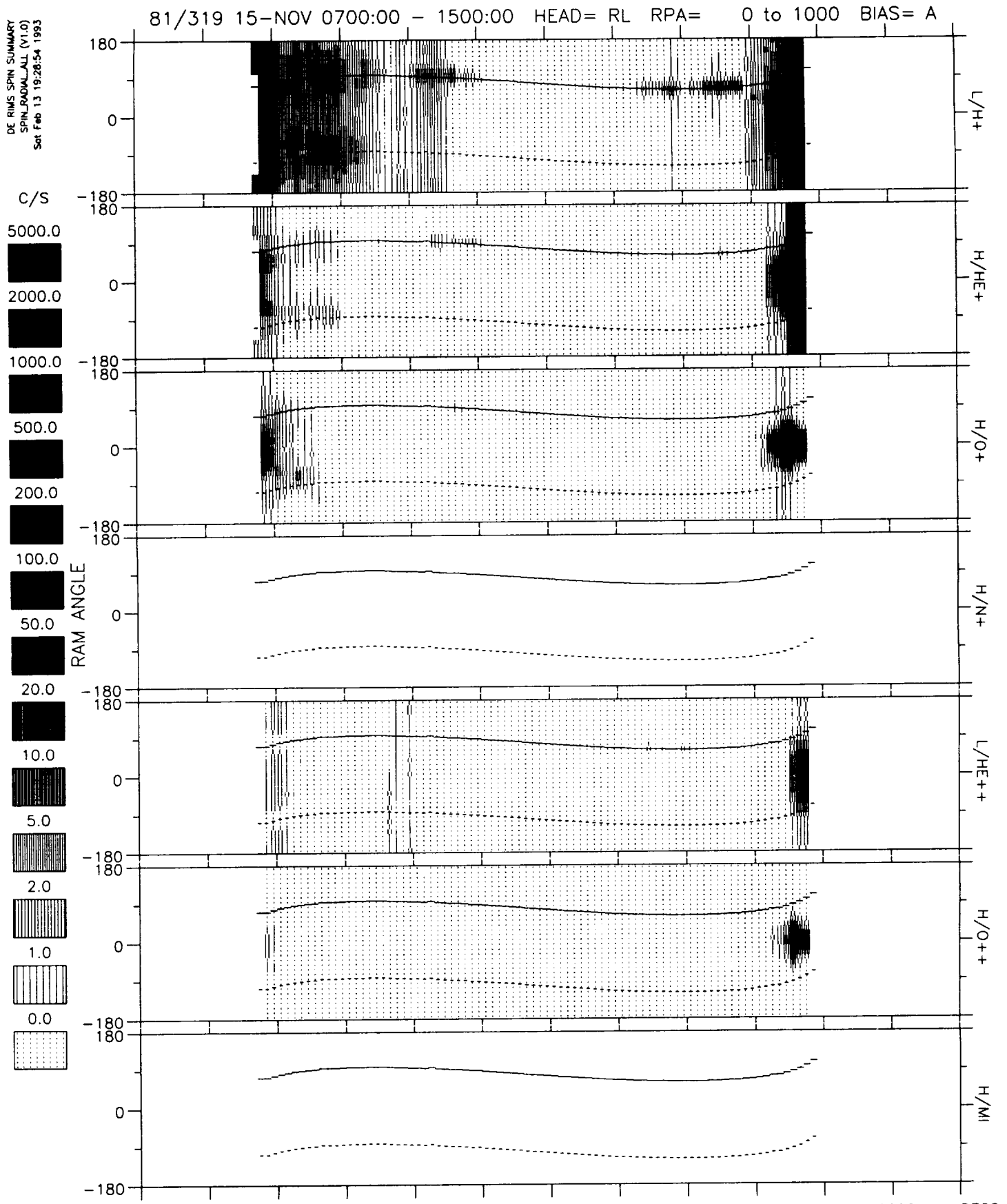

81/317 13-NOV 2115:00 - 0515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:19:06 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2155 2235 2315 0000 0000 0000 0000 0235 0315 0000 0000 DEGS
RE 2.9 3.8 4.3 0.0 0.0 0.0 0.0 3.0 1.8 0.0 0.0 HHMM
L 2.9 4.7 7.5 0.0 0.0 0.0 0.0 29.9 2.4 0.0 0.0 RE
MLT 7.1 7.1 7.1 0.0 0.0 0.0 0.0 17.7 19.0 0.0 0.0
MLAT 6.79 26.34 39.56 0.00 0.00 0.00 0.00 71.31 30.79 0.00 0.00 HRS
INVLAT 53.8 62.6 68.6 0.0 0.0 0.0 0.0 79.5 49.9 0.0 0.0 DEGS

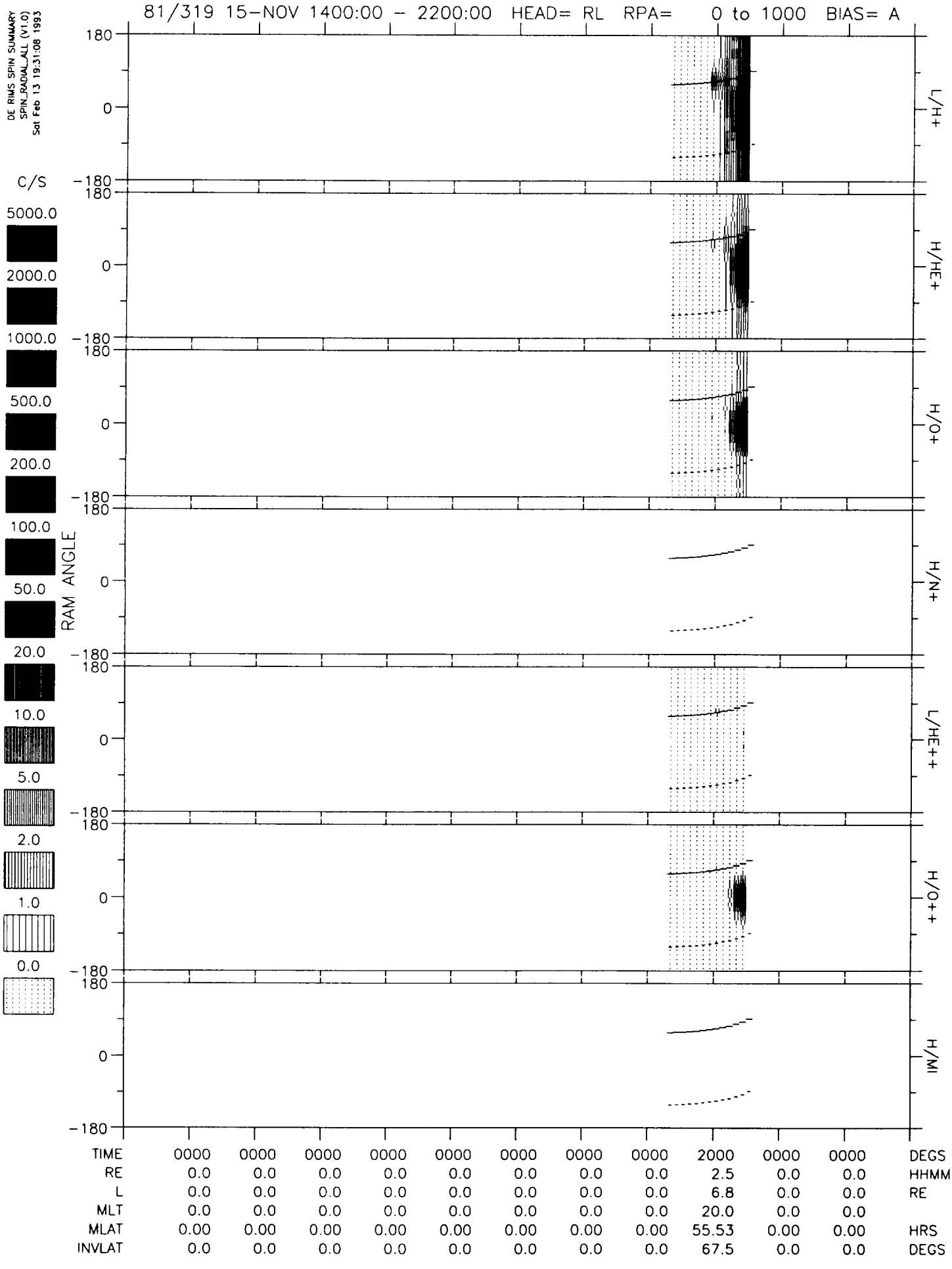

81/318 14-NOV 0330:00 - 1130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:21:07 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0530 0000 0000 0000 0000 0850 0930 1010 0000 DEGS
RE 0.0 0.0 3.9 0.0 0.0 0.0 0.0 3.8 2.9 1.7 0.0 HHMM
L 0.0 0.0 5.9 0.0 0.0 0.0 0.0 44.5 8.1 1.6 0.0 RE
MLT 0.0 0.0 8.2 0.0 0.0 0.0 0.0 18.0 19.1 19.6 0.0
MLAT 0.00 0.00 37.08 0.00 0.00 0.00 0.00 71.68 51.79 5.70 0.00 HRS
INVLAT 0.0 0.0 65.7 0.0 0.0 0.0 0.0 81.4 69.4 38.0 0.0 DEGS

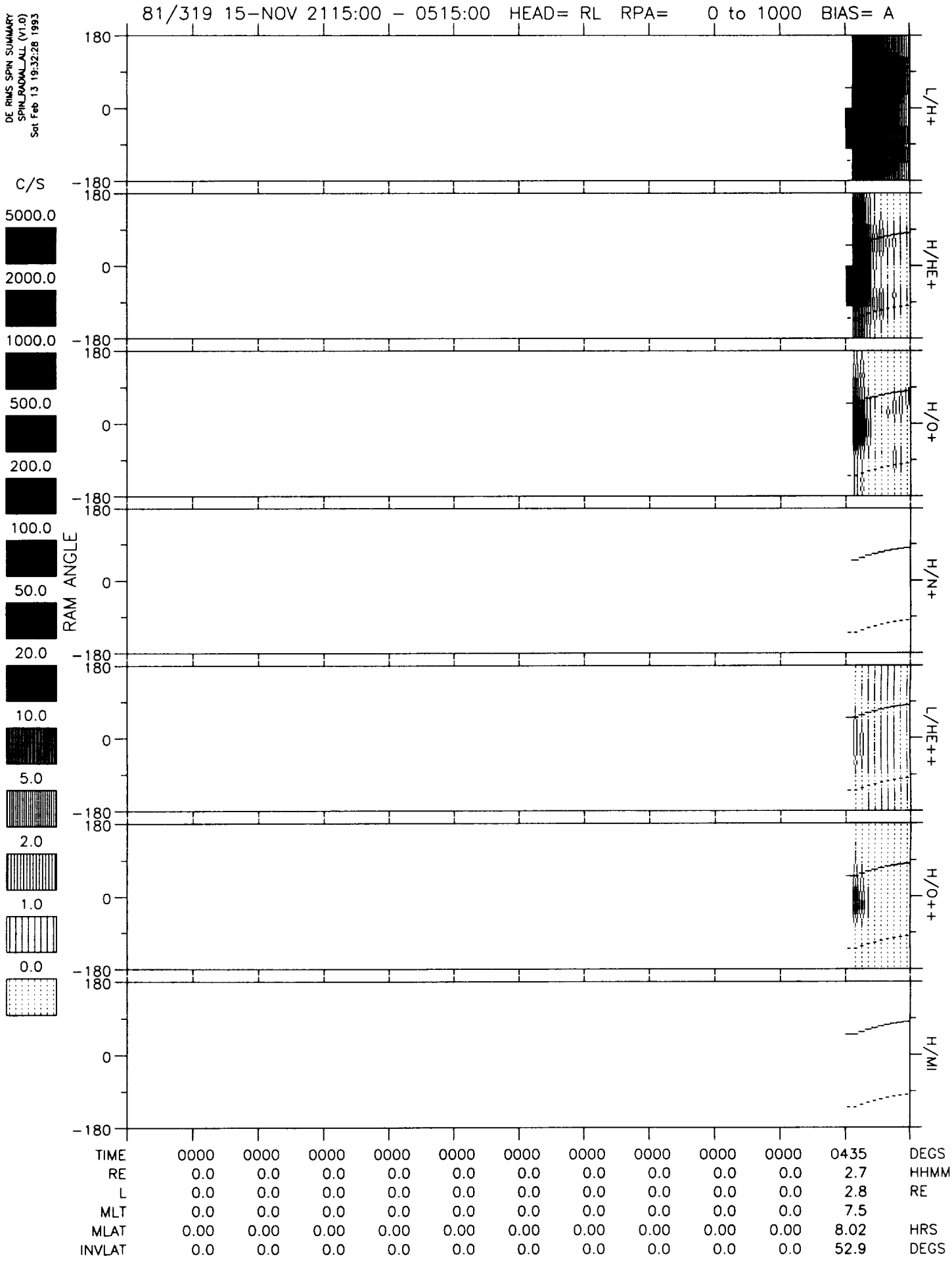

81/318 14-NOV 1030:00 - 1830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:22:36 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1150 1230 1310 1350 1430 1510 1550 1630 1710 0000 DEGS
RE 0.0 3.2 4.0 4.5 4.7 4.6 4.3 3.6 2.7 1.4 0.0 HHMM
L 0.0 5.0 11.1 24.5 61.6 100.0 100.0 33.6 6.5 1.4 0.0 RE
MLT 0.0 7.6 7.4 7.0 6.1 3.9 23.7 21.4 20.3 19.3 0.0
MLAT 0.00 36.25 53.23 64.96 74.13 80.80 80.07 70.06 50.36 -5.27 0.00 HRS
INVLAT 0.0 63.5 72.5 78.3 82.7 86.0 85.8 80.1 66.9 33.8 0.0 DEGS

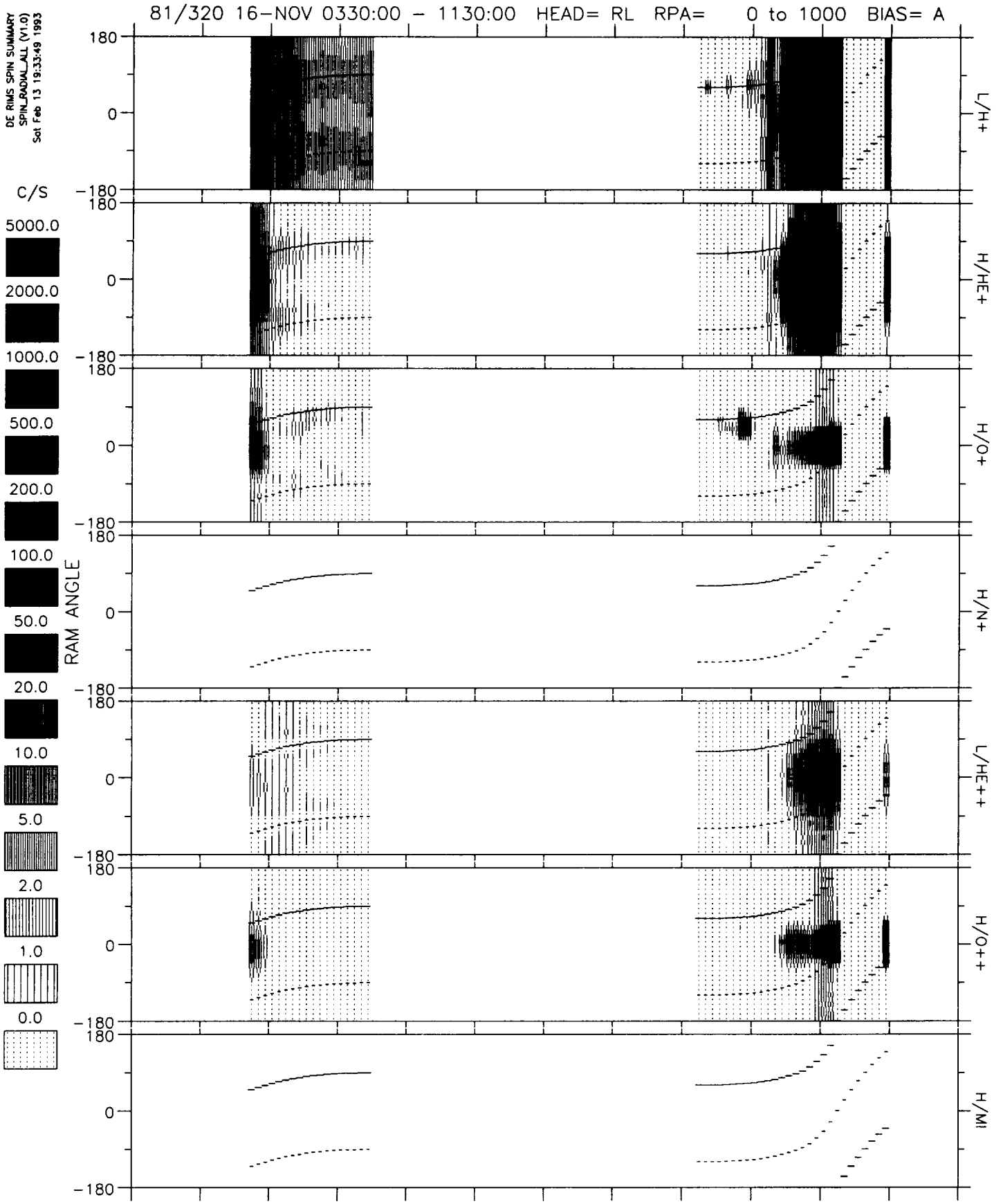

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:25:24 1993
81/318 14-NOV 1730:00 - 0130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 2330 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.4 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 8.5 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 19.2 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 58.65 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 70.0 0.0 0.0 DEGS

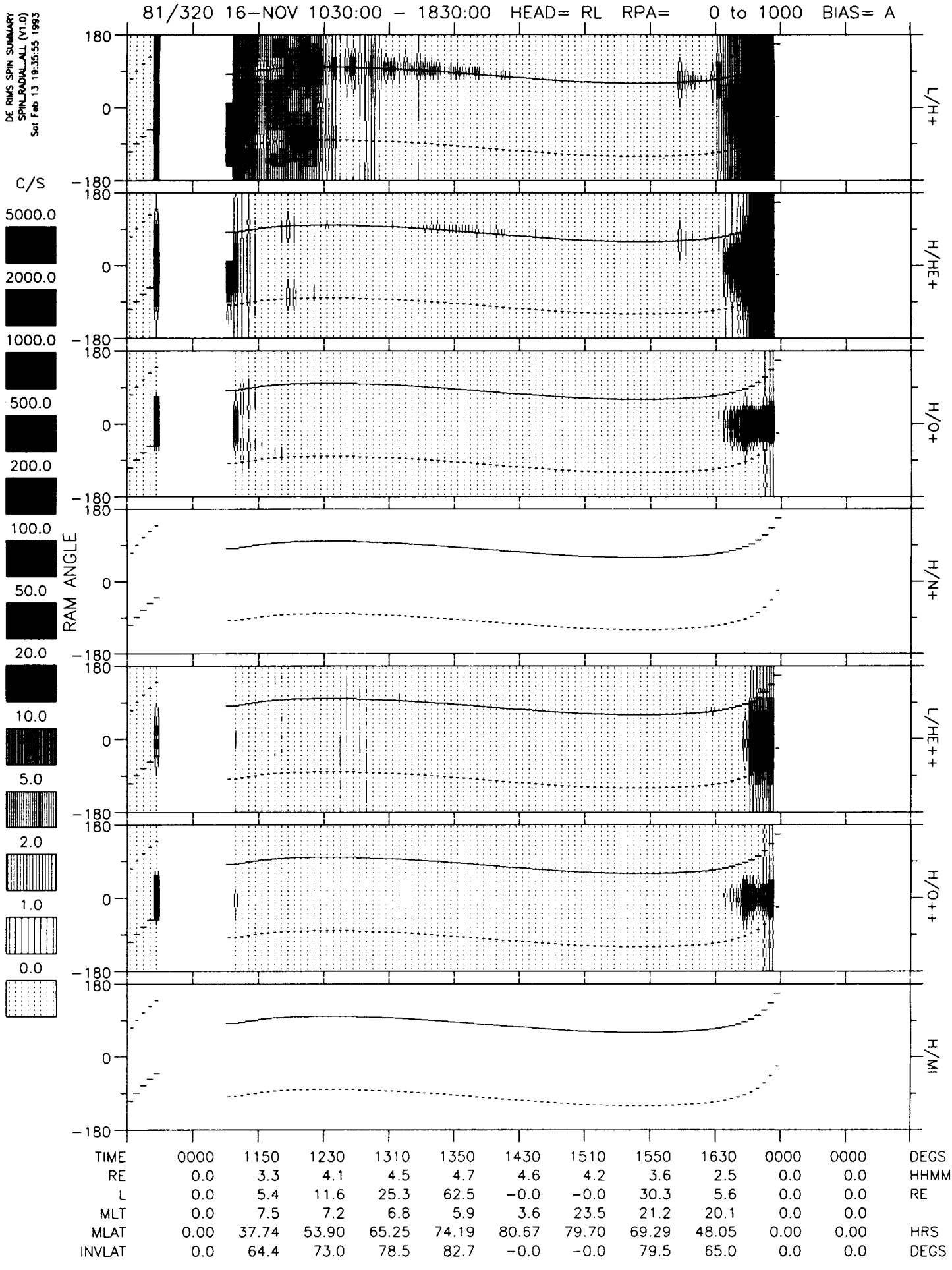

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:26:58 1993
81/319 15-NOV 0015:00 - 0815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0135 0215 0255 0000 0000 0000 0000 0615 0000 0000 DEGS
RE 0.0 3.3 4.1 4.5 0.0 0.0 0.0 0.0 2.6 0.0 0.0 HHMM
L 0.0 3.6 5.9 9.8 0.0 0.0 0.0 0.0 6.1 0.0 0.0 RE
MLT 0.0 7.3 7.6 7.9 0.0 0.0 0.0 0.0 18.6 0.0 0.0
MLAT 0.00 16.16 33.67 46.94 0.00 0.00 0.00 0.00 49.68 0.00 0.00 HRS
INVLAT 0.0 58.1 65.8 71.4 0.0 0.0 0.0 0.0 66.1 0.0 0.0 DEGS

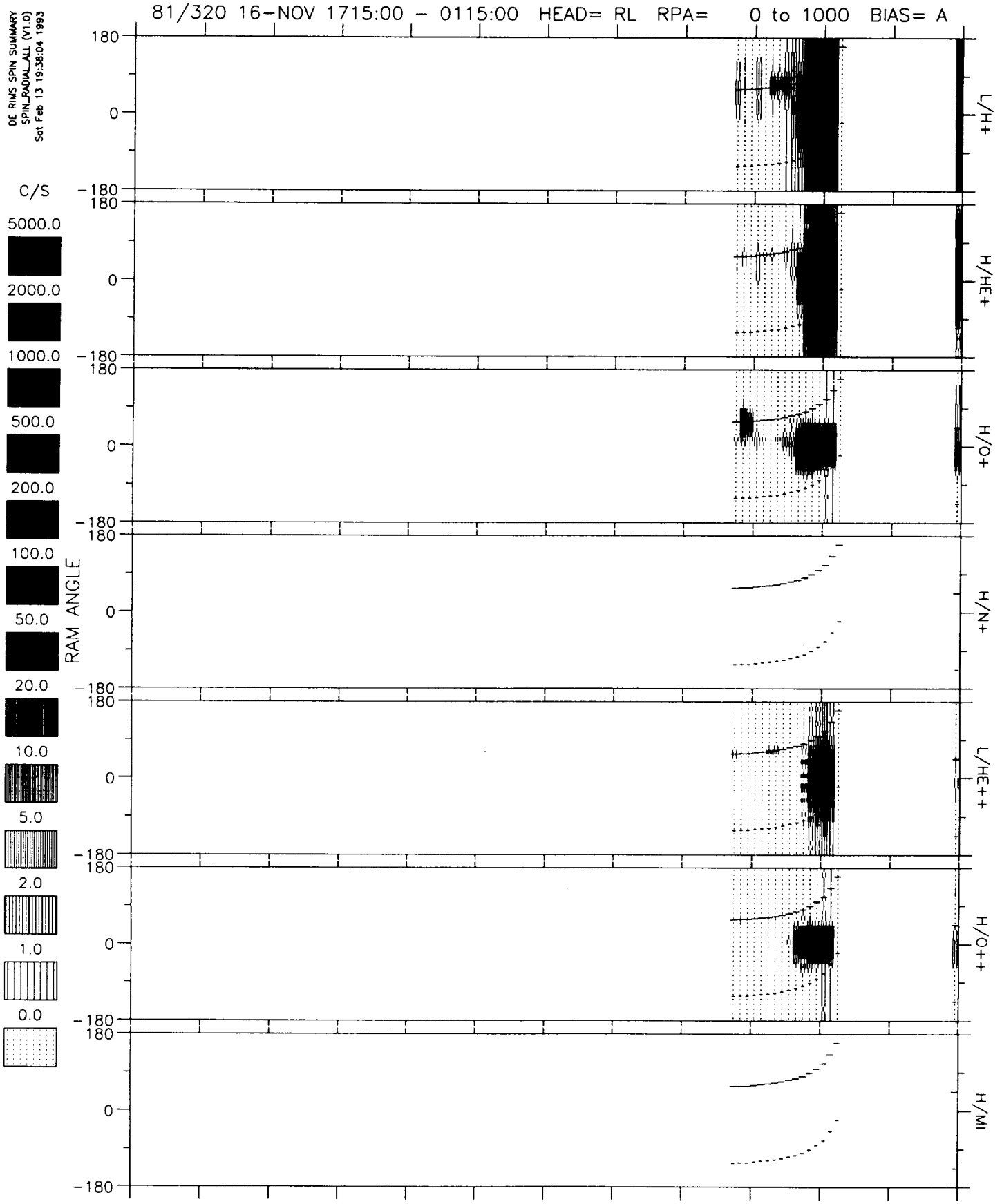

81/319 15-NOV 0700:00 - 1500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:28:54 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0000 0820 0900 0940 1020 1100 1140 1220 1300 0000 0000 DEGS
RE 0.0 3.2 4.0 4.4 4.6 4.6 4.3 3.7 2.7 0.0 0.0 HHMM
L 0.0 4.1 8.7 19.6 57.2 100.0 100.0 29.8 6.2 0.0 0.0 RE
MLT 0.0 7.9 8.2 8.4 8.6 9.5 19.6 19.9 19.8 0.0 0.0
MLAT 0.00 30.09 49.08 62.91 74.68 85.67 82.21 68.14 46.60 0.00 0.00 HRS
INVLAT 0.0 60.4 70.2 76.9 82.4 87.4 86.7 79.4 66.3 0.0 0.0 DEGS

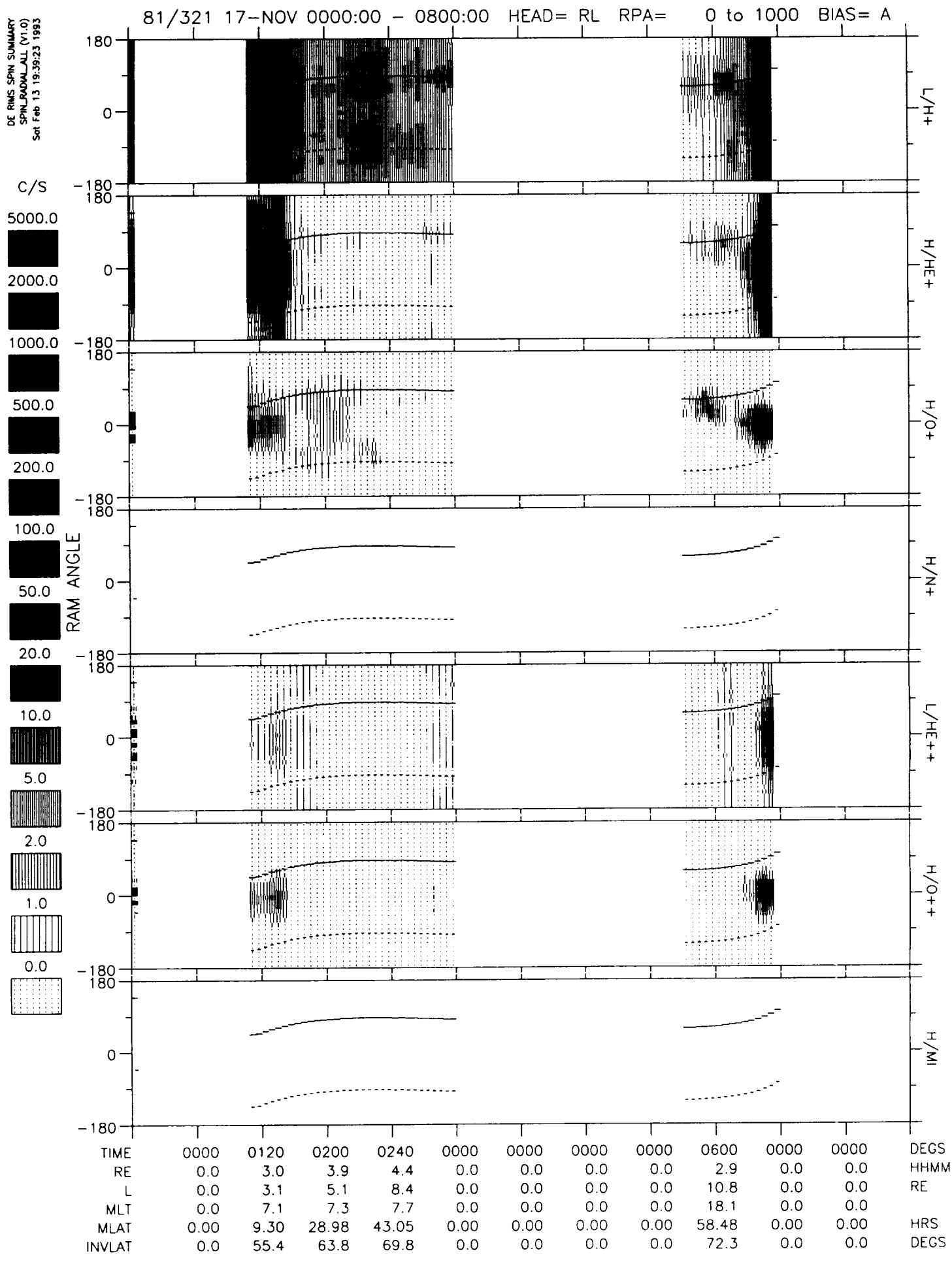

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:31:08 1993
81/319 15-NOV 1400:00 - 2200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 2000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.5 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 6.8 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 20.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 55.53 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 67.5 0.0 0.0 DEGS

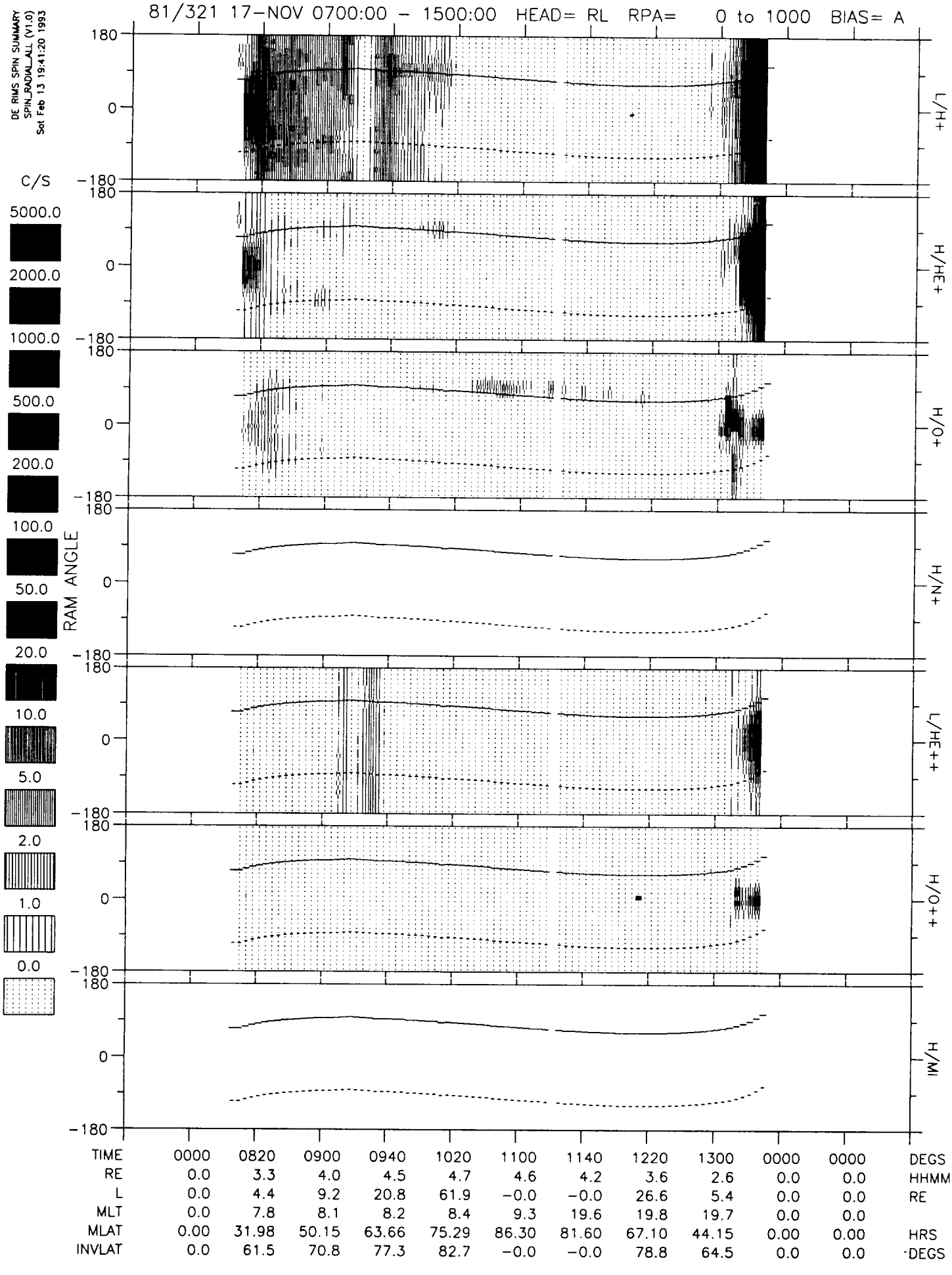

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:32:28 1993
81/319 15-NOV 2115:00 - 0515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0435 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.7 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.8 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 7.5
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 8.02 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 52.9 DEGS

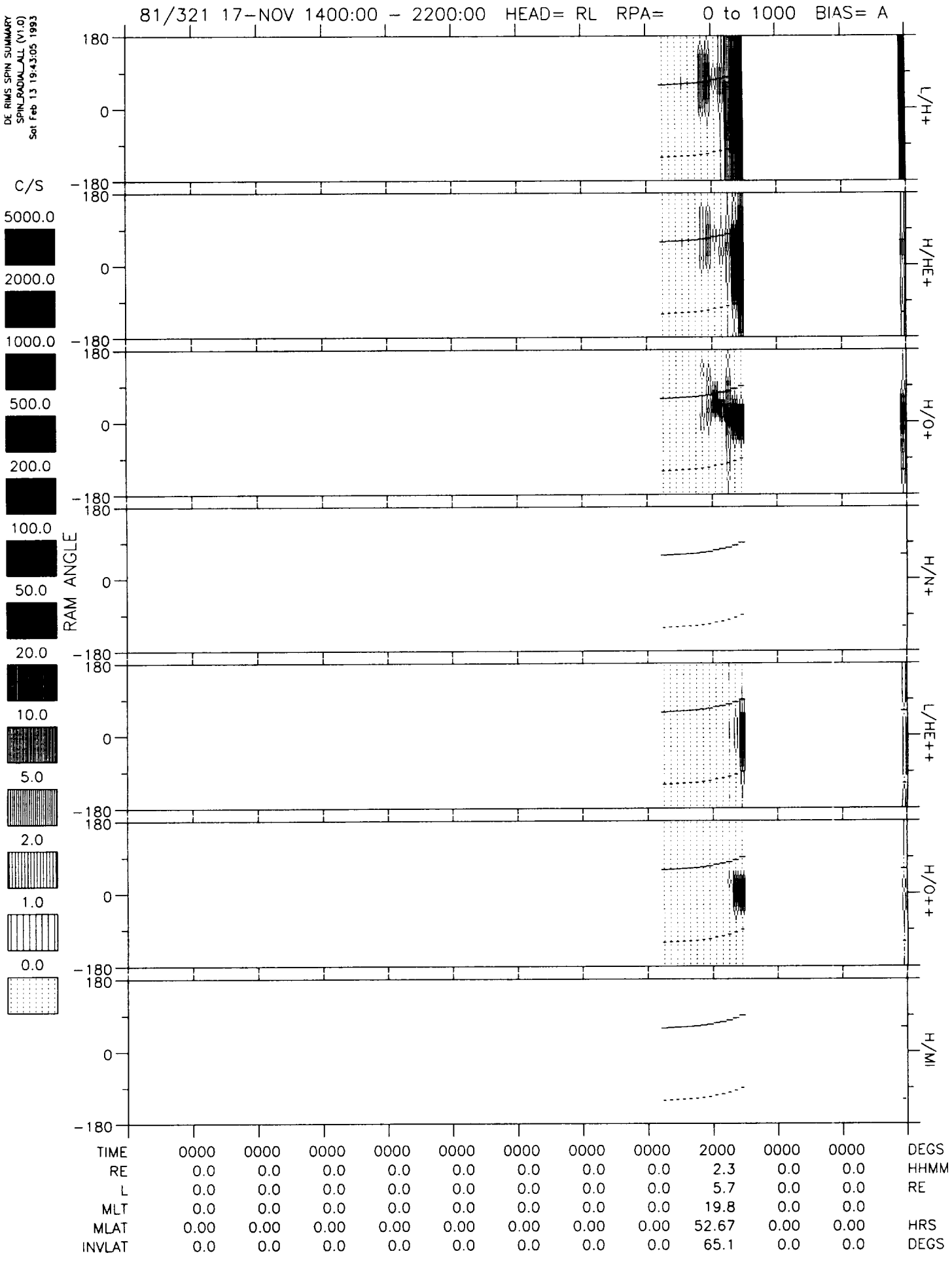

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:33:49 1993
81/320 16-NOV 0330:00 - 1130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0000 0450 0530 0000 0000 0000 0000 0000 0930 1010 0000 DEGS
RE 0.0 3.1 3.9 0.0 0.0 0.0 0.0 0.0 2.8 1.5 0.0 HHMM
L 0.0 3.4 6.2 0.0 0.0 0.0 0.0 0.0 7.0 1.4 0.0 RE
MLT 0.0 7.6 8.1 0.0 0.0 0.0 0.0 0.0 19.1 19.5 0.0
MLAT 0.00 18.57 38.31 0.00 0.00 0.00 0.00 0.00 49.49 -3.03 0.00 HRS
INVLAT 0.0 57.2 66.3 0.0 0.0 0.0 0.0 0.0 67.8 33.6 0.0 DEGS

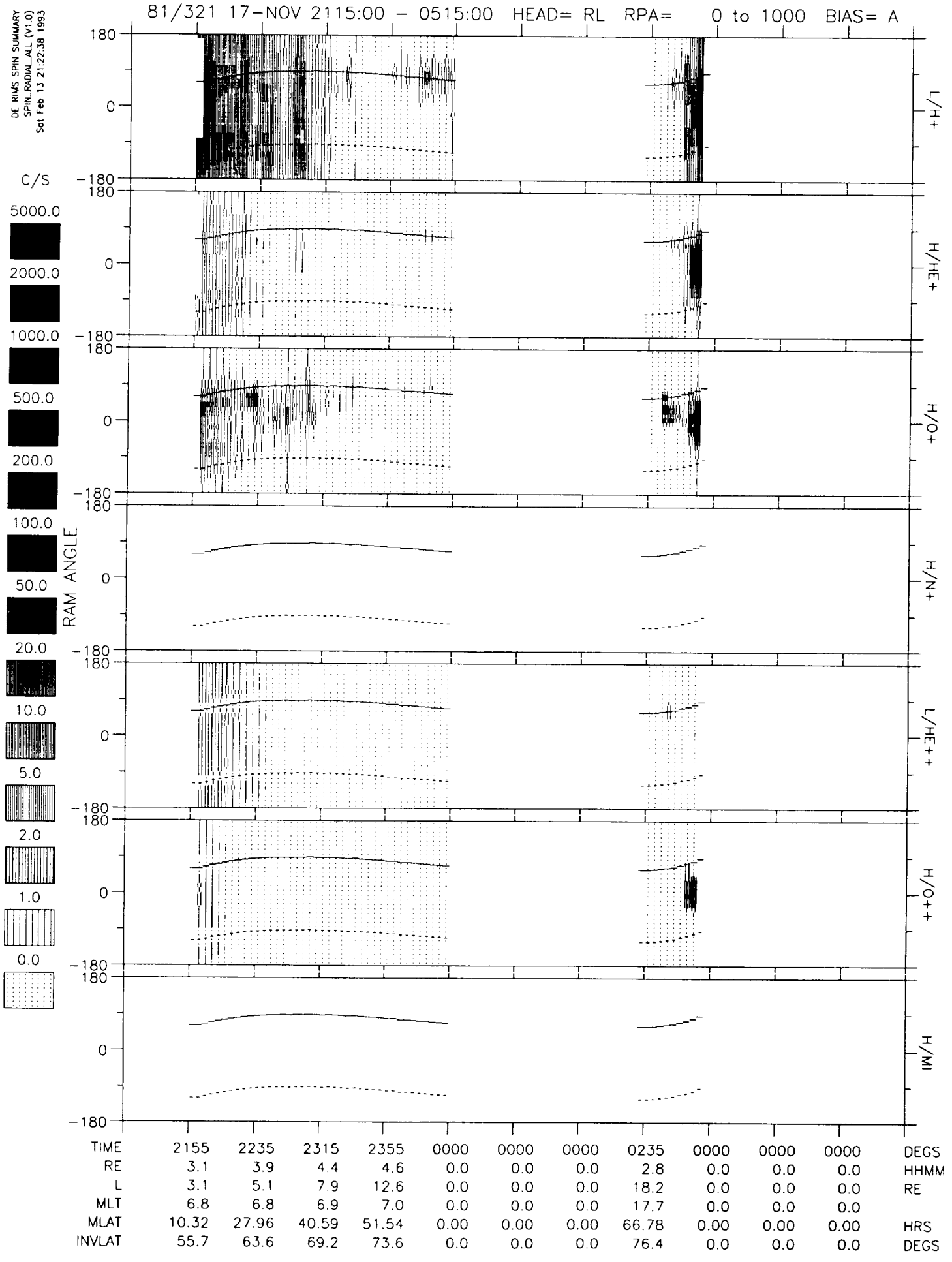

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:35:55 1993
81/320 16-NOV 1030:00 - 1830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1150 1230 1310 1350 1430 1510 1550 1630 0000 0000 DEGS
RE 0.0 3.3 4.1 4.5 4.7 4.6 4.2 3.6 2.5 0.0 0.0 HHMM
L 0.0 5.4 11.6 25.3 62.5 -0.0 -0.0 30.3 5.6 0.0 0.0 RE
MLT 0.0 7.5 7.2 6.8 5.9 3.6 23.5 21.2 20.1 0.0 0.0
MLAT 0.00 37.74 53.90 65.25 74.19 80.67 79.70 69.29 48.05 0.00 0.00 HRS
INVLAT 0.0 64.4 73.0 78.5 82.7 -0.0 -0.0 79.5 65.0 0.0 0.0 DEGS

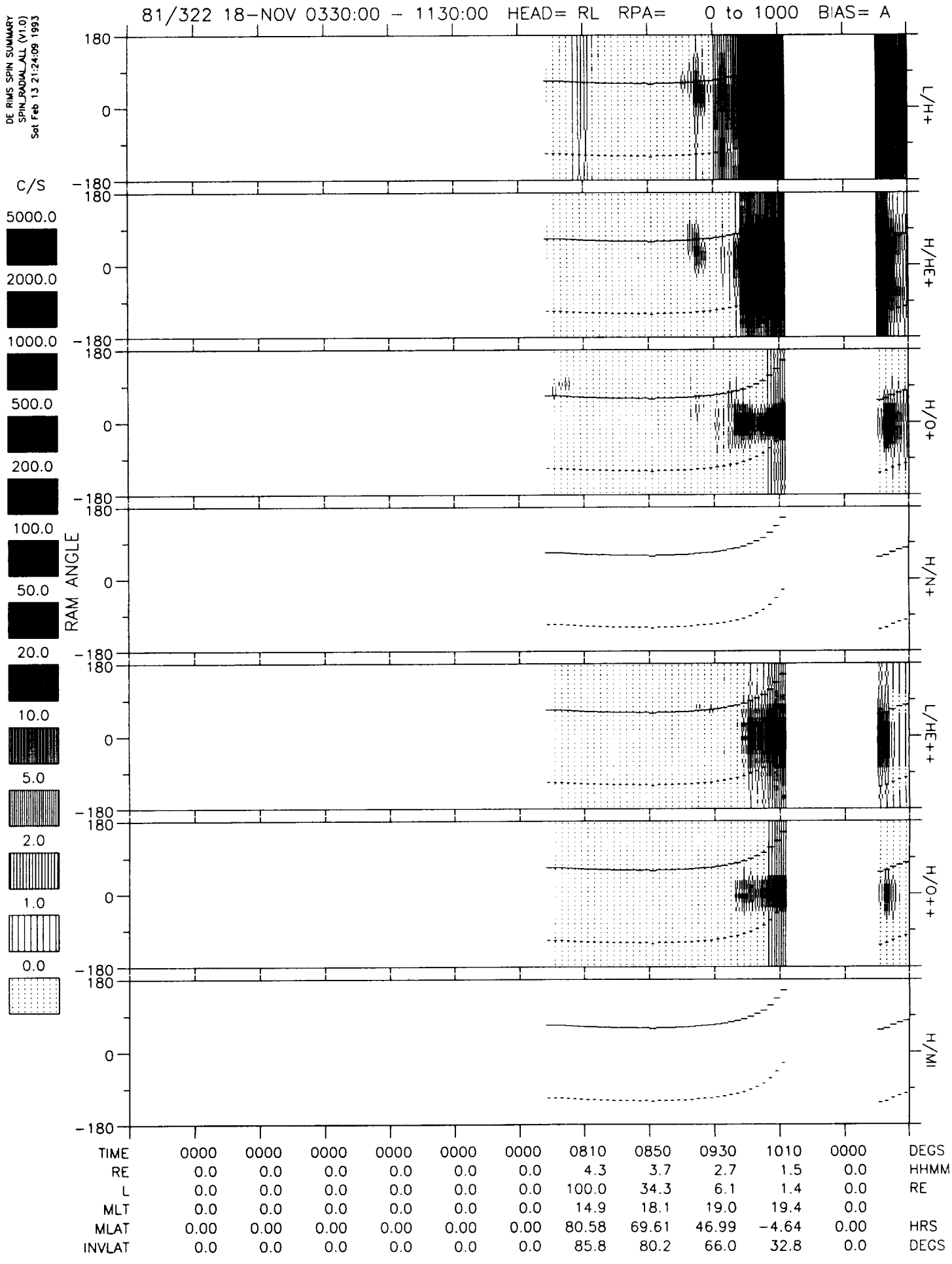

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:38:04 1993
81/320 16-NOV 1715:00 - 0115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 2315 2355 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.7 1.4 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 19.0 1.5 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 19.1 19.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 68.80 10.59 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 76.7 35.8 0.0 DEGS

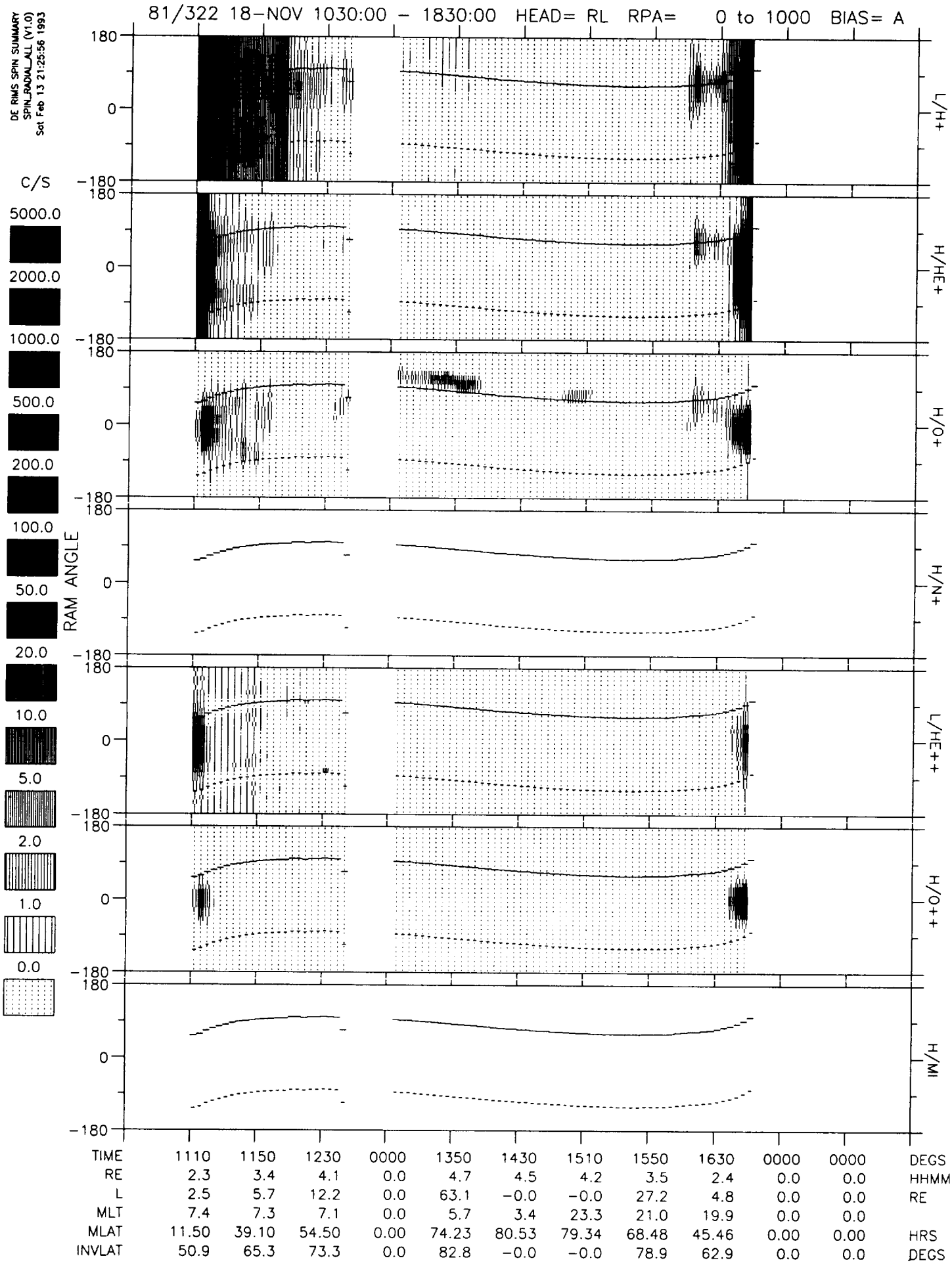

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:39:23 1993
81/321 17-NOV 0000:00 - 0800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0120 0200 0240 0000 0000 0000 0000 0600 0000 0000 DEGS
RE 0.0 3.0 3.9 4.4 0.0 0.0 0.0 0.0 2.9 0.0 0.0 HHMM
L 0.0 3.1 5.1 8.4 0.0 0.0 0.0 0.0 10.8 0.0 0.0 RE
MLT 0.0 7.1 7.3 7.7 0.0 0.0 0.0 0.0 18.1 0.0 0.0
MLAT 0.00 9.30 28.98 43.05 0.00 0.00 0.00 0.00 58.48 0.00 0.00 HRS
INVLAT 0.0 55.4 63.8 69.8 0.0 0.0 0.0 0.0 72.3 0.0 0.0 DEGS

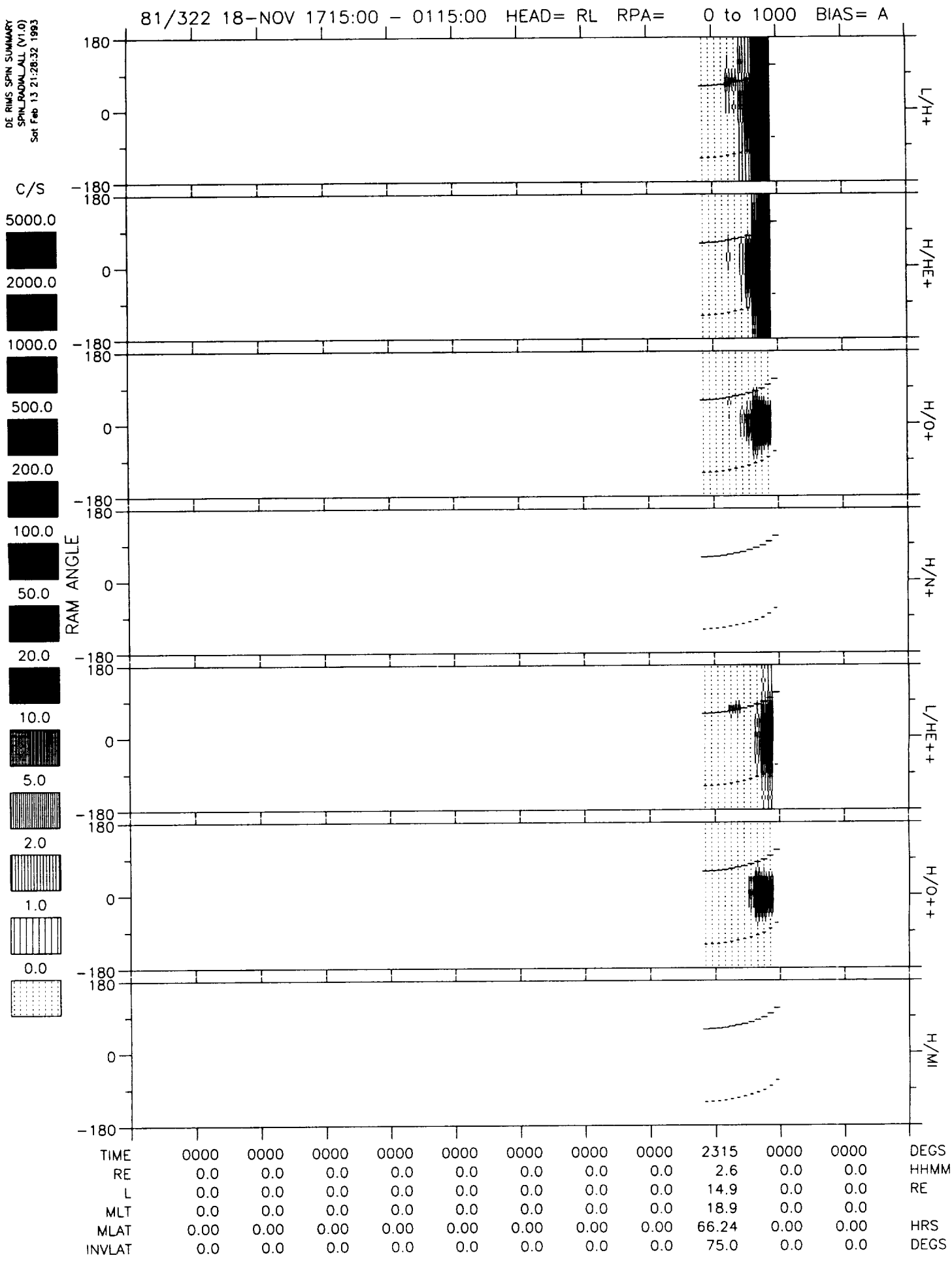

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:41:20 1993
81/321 17-NOV 0700:00 - 1500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0820 0900 0940 1020 1100 1140 1220 1300 0000 0000 DEGS
RE 0.0 3.3 4.0 4.5 4.7 4.6 4.2 3.6 2.6 0.0 0.0 HHMM
L 0.0 4.4 9.2 20.8 61.9 -0.0 -0.0 26.6 5.4 0.0 0.0 RE
MLT 0.0 7.8 8.1 8.2 8.4 9.3 19.6 19.8 19.7 0.0 0.0
MLAT 0.00 31.98 50.15 63.66 75.29 86.30 81.60 67.10 44.15 0.00 0.00 HRS
INVLAT 0.0 61.5 70.8 77.3 82.7 -0.0 -0.0 78.8 64.5 0.0 0.0 DEGS

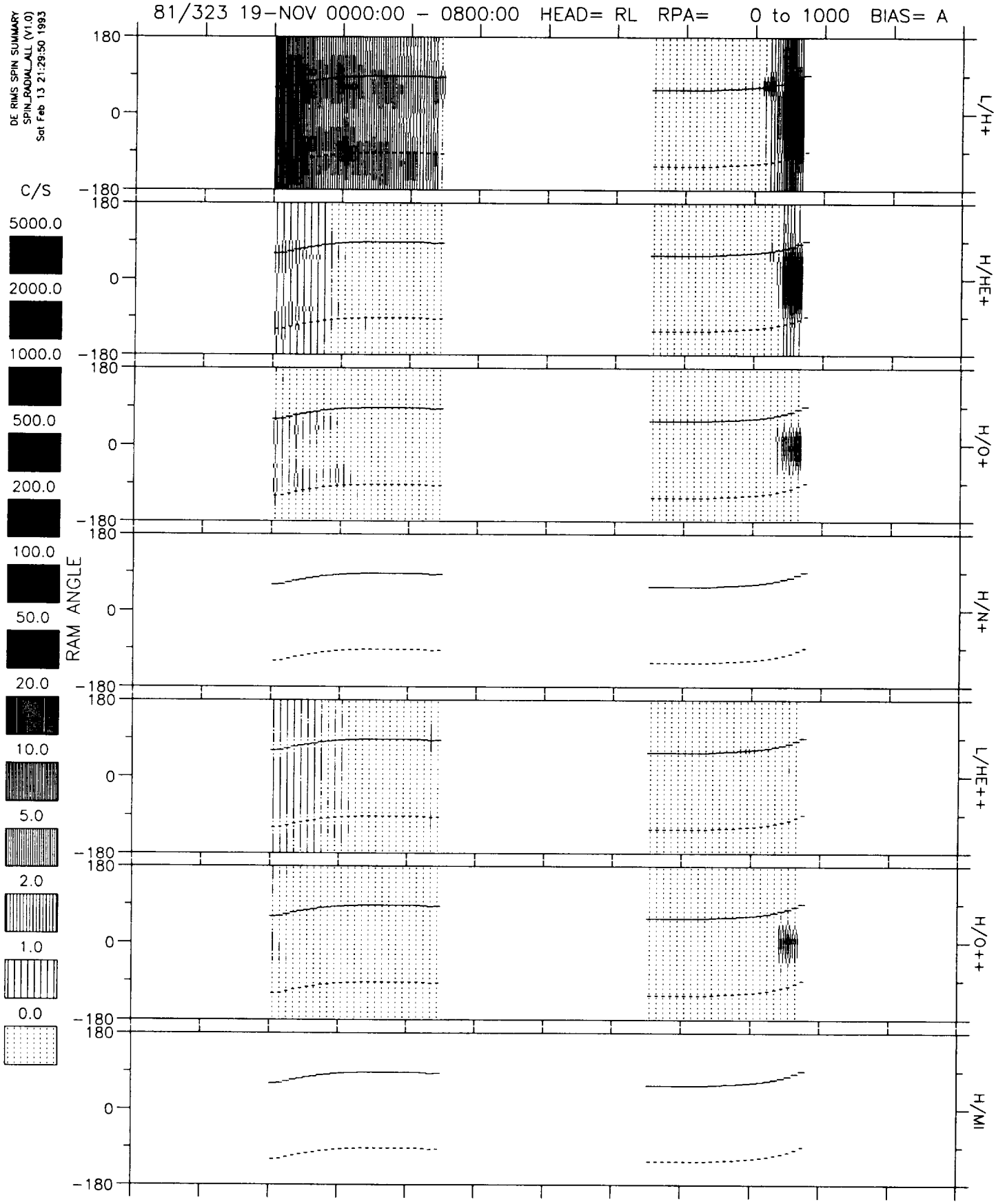

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 19:43:05 1993
81/321 17-NOV 1400:00 - 2200:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 2000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.3 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.7 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 19.8 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 52.67 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 65.1 0.0 0.0 DEGS

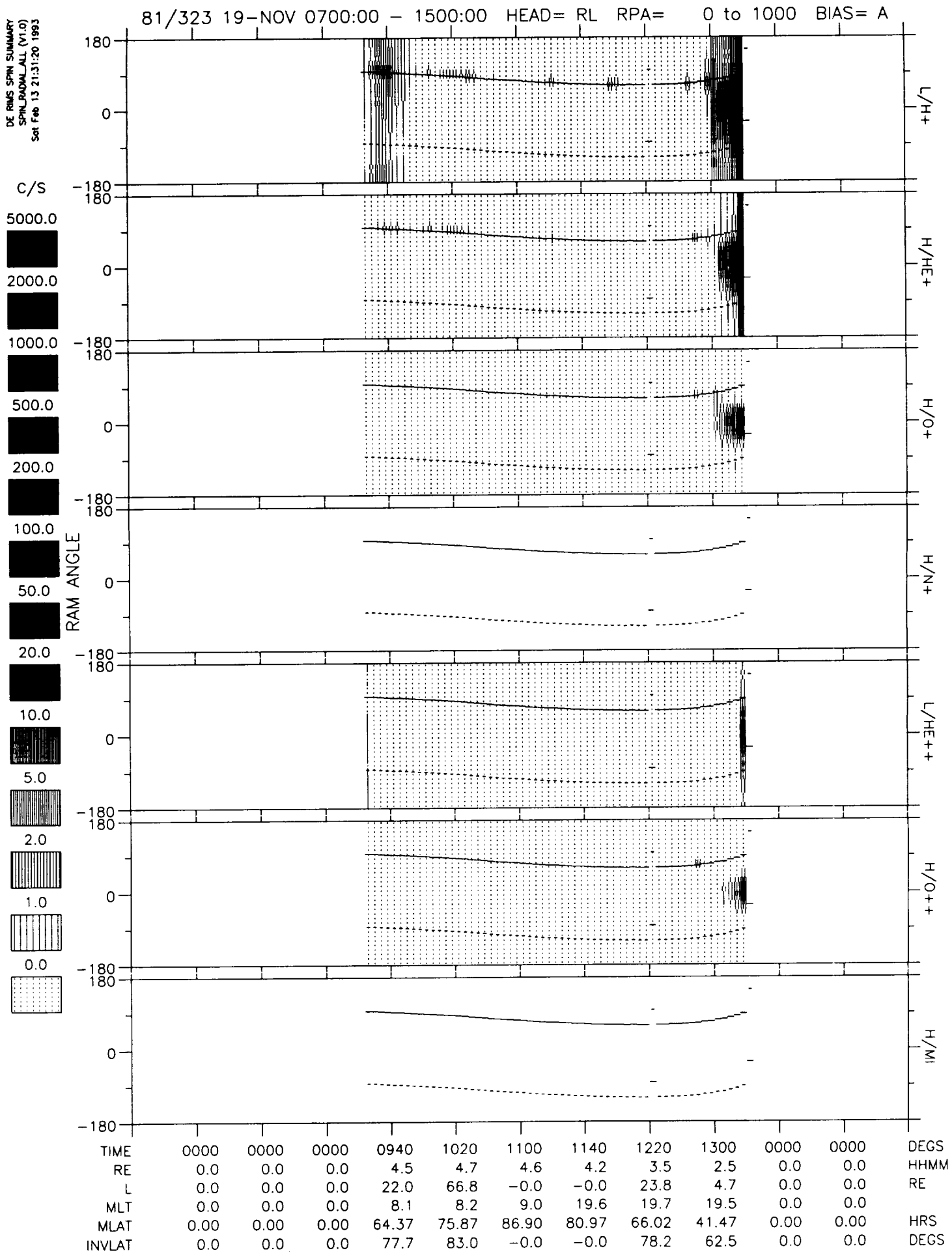

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 21:22:38 1993
81/321 17-NOV 2115:00 - 0515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2155 2235 2315 2355 0000 0000 0000 0235 0000 0000 0000 DEGS
RE 3.1 3.9 4.4 4.6 0.0 0.0 0.0 2.8 0.0 0.0 0.0 HHMM
L 3.1 5.1 7.9 12.6 0.0 0.0 0.0 18.2 0.0 0.0 0.0 RE
MLT 6.8 6.8 6.9 7.0 0.0 0.0 0.0 17.7 0.0 0.0 0.0
MLAT 10.32 27.96 40.59 51.54 0.00 0.00 0.00 66.78 0.00 0.00 0.00 HRS
INVLAT 55.7 63.6 69.2 73.6 0.0 0.0 0.0 76.4 0.0 0.0 0.0 DEGS

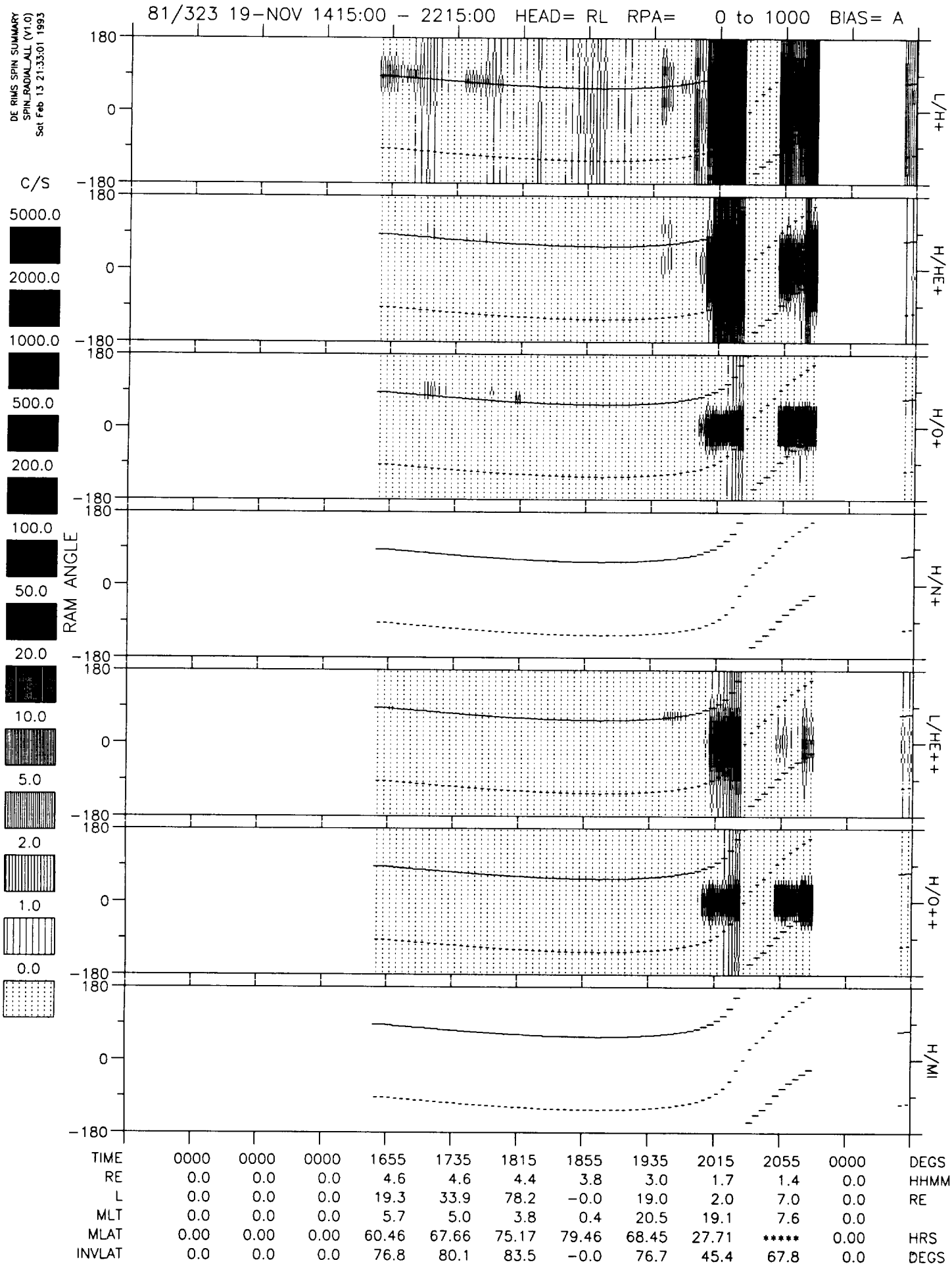

81/322 18-NOV 0330:00 - 1130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 21:24:09 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0810 0850 0930 1010 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 4.3 3.7 2.7 1.5 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 100.0 34.3 6.1 1.4 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 14.9 18.1 19.0 19.4 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 80.58 69.61 46.99 -4.64 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 85.8 80.2 66.0 32.8 0.0 DEGS

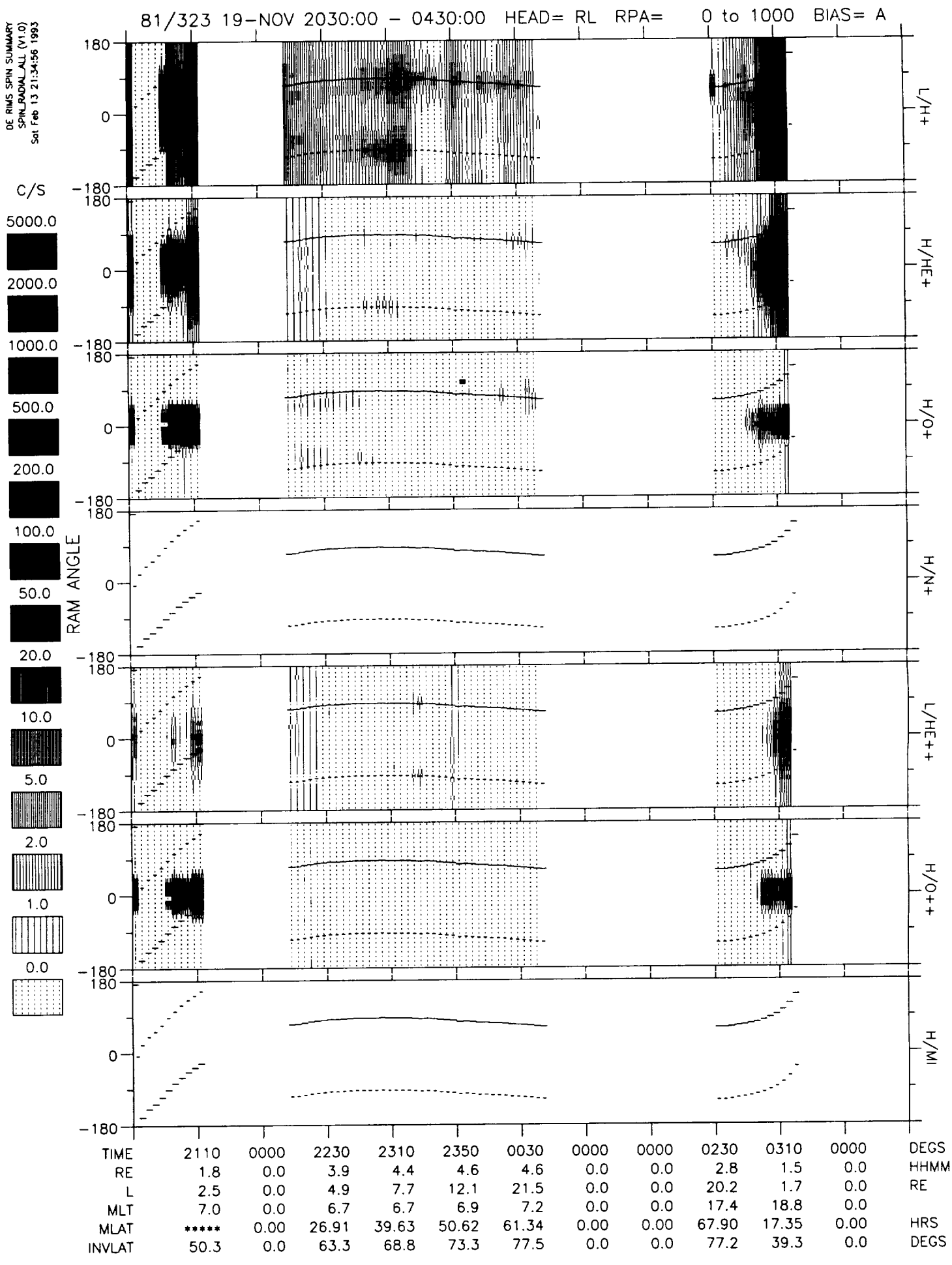

81/322 18-NOV 1030:00 - 1830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 21:25:56 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 1110 1150 1230 0000 1350 1430 1510 1550 1630 0000 0000 DEGS
RE 2.3 3.4 4.1 0.0 4.7 4.5 4.2 3.5 2.4 0.0 0.0 HHMM
L 2.5 5.7 12.2 0.0 63.1 -0.0 -0.0 27.2 4.8 0.0 0.0 RE
MLT 7.4 7.3 7.1 0.0 5.7 3.4 23.3 21.0 19.9 0.0 0.0
MLAT 11.50 39.10 54.50 0.00 74.23 80.53 79.34 68.48 45.46 0.00 0.00 HRS
INVLAT 50.9 65.3 73.3 0.0 82.8 -0.0 -0.0 78.9 62.9 0.0 0.0 DEGS

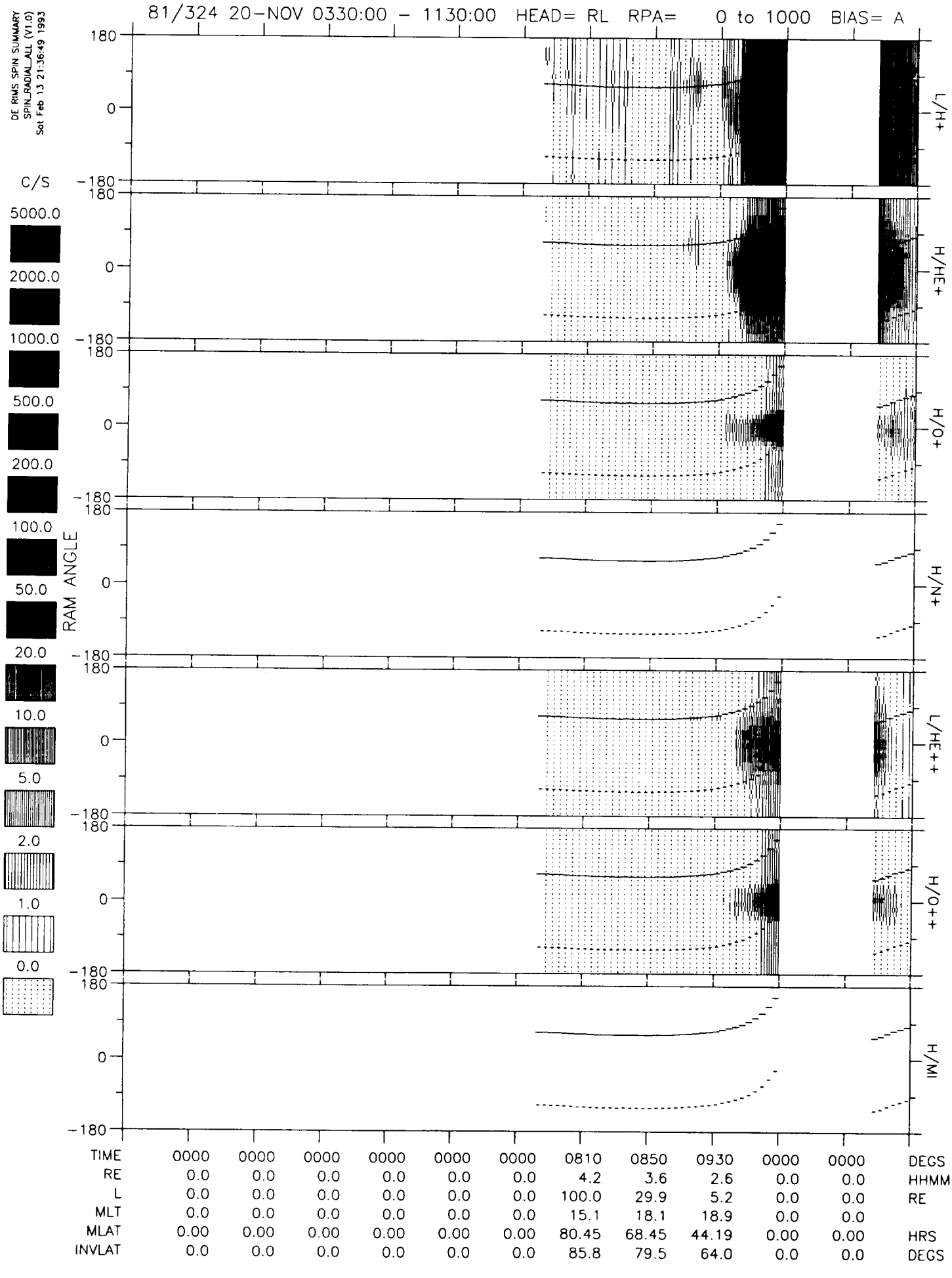

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 21:28:32 1993
81/322 18-NOV 1715:00 - 0115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 2315 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.6 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 14.9 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 18.9 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 66.24 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 75.0 0.0 0.0 DEGS

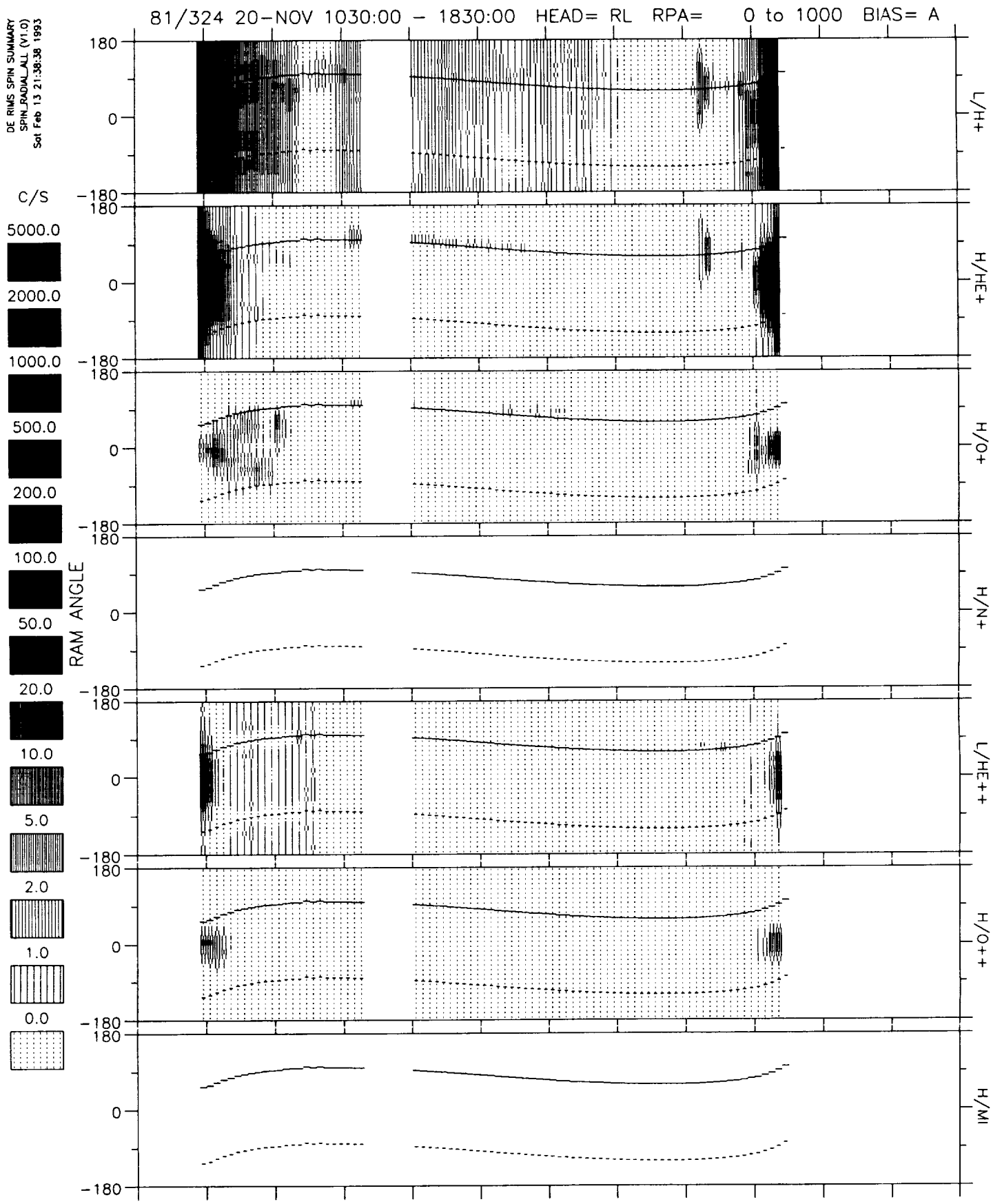

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 21:29:50 1993
81/323 19-NOV 0000:00 - 0800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0120 0200 0240 0000 0000 0000 0520 0600 0000 0000 DEGS
RE 0.0 3.1 3.9 4.4 0.0 0.0 0.0 3.7 2.8 0.0 0.0 HHMM
L 0.0 3.2 5.3 8.7 0.0 0.0 0.0 72.2 9.0 0.0 0.0 RE
MLT 0.0 7.0 7.2 7.6 0.0 0.0 0.0 15.7 18.1 0.0 0.0
MLAT 0.00 11.21 30.02 43.79 0.00 0.00 0.00 75.70 56.09 0.00 0.00 HRS
INVLAT 0.0 56.3 64.3 70.1 0.0 0.0 0.0 83.2 70.6 0.0 0.0 DEGS

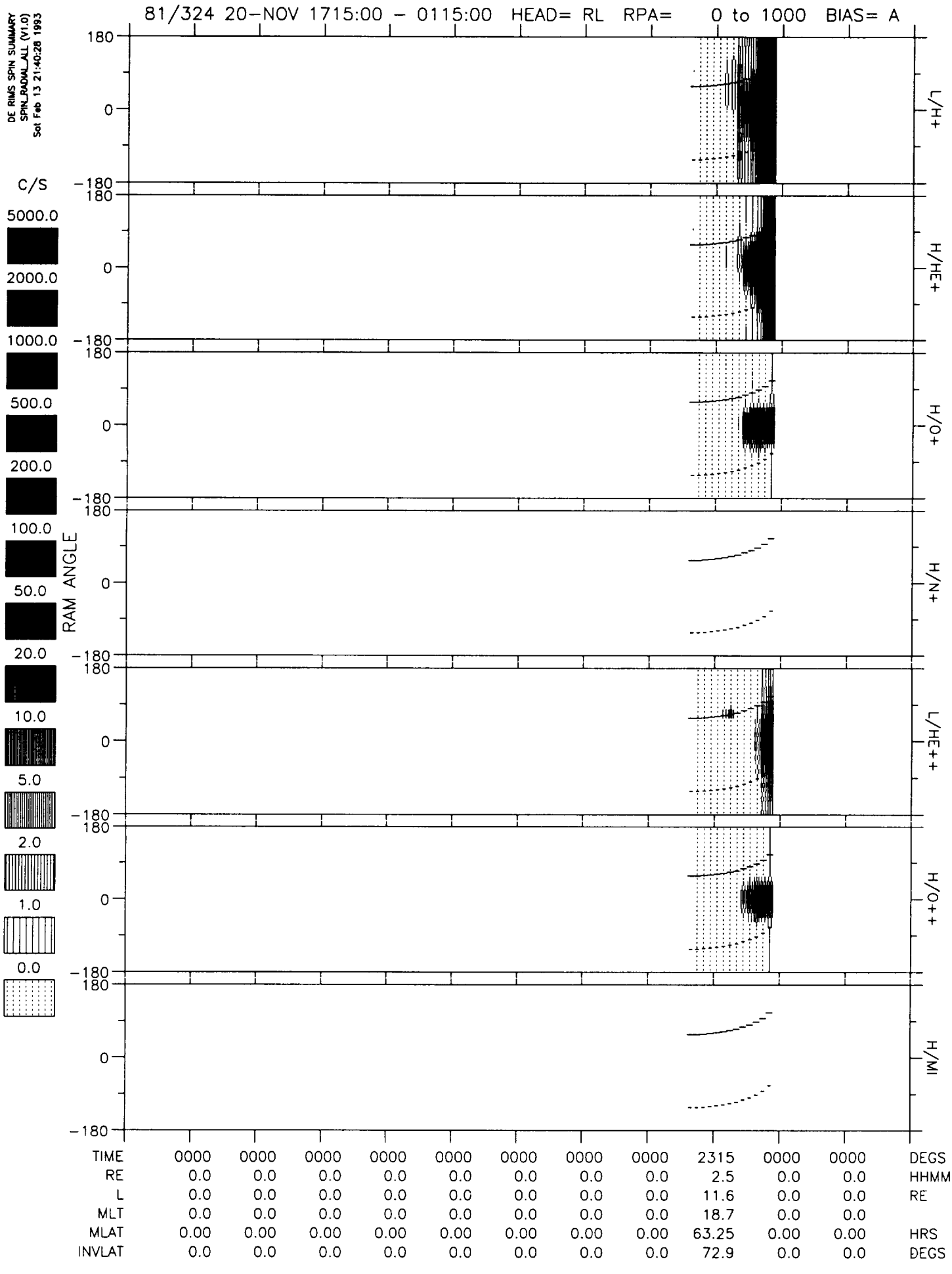

81/323 19-NOV 0700:00 - 1500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 21:31:20 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0940 1020 1100 1140 1220 1300 0000 0000 DEGS
RE 0.0 0.0 0.0 4.5 4.7 4.6 4.2 3.5 2.5 0.0 0.0 HHMM
L 0.0 0.0 0.0 22.0 66.8 -0.0 -0.0 23.8 4.7 0.0 0.0 RE
MLT 0.0 0.0 0.0 8.1 8.2 9.0 19.6 19.7 19.5 0.0 0.0
MLAT 0.00 0.00 0.00 64.37 75.87 86.90 80.97 66.02 41.47 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 77.7 83.0 -0.0 -0.0 78.2 62.5 0.0 0.0 DEGS

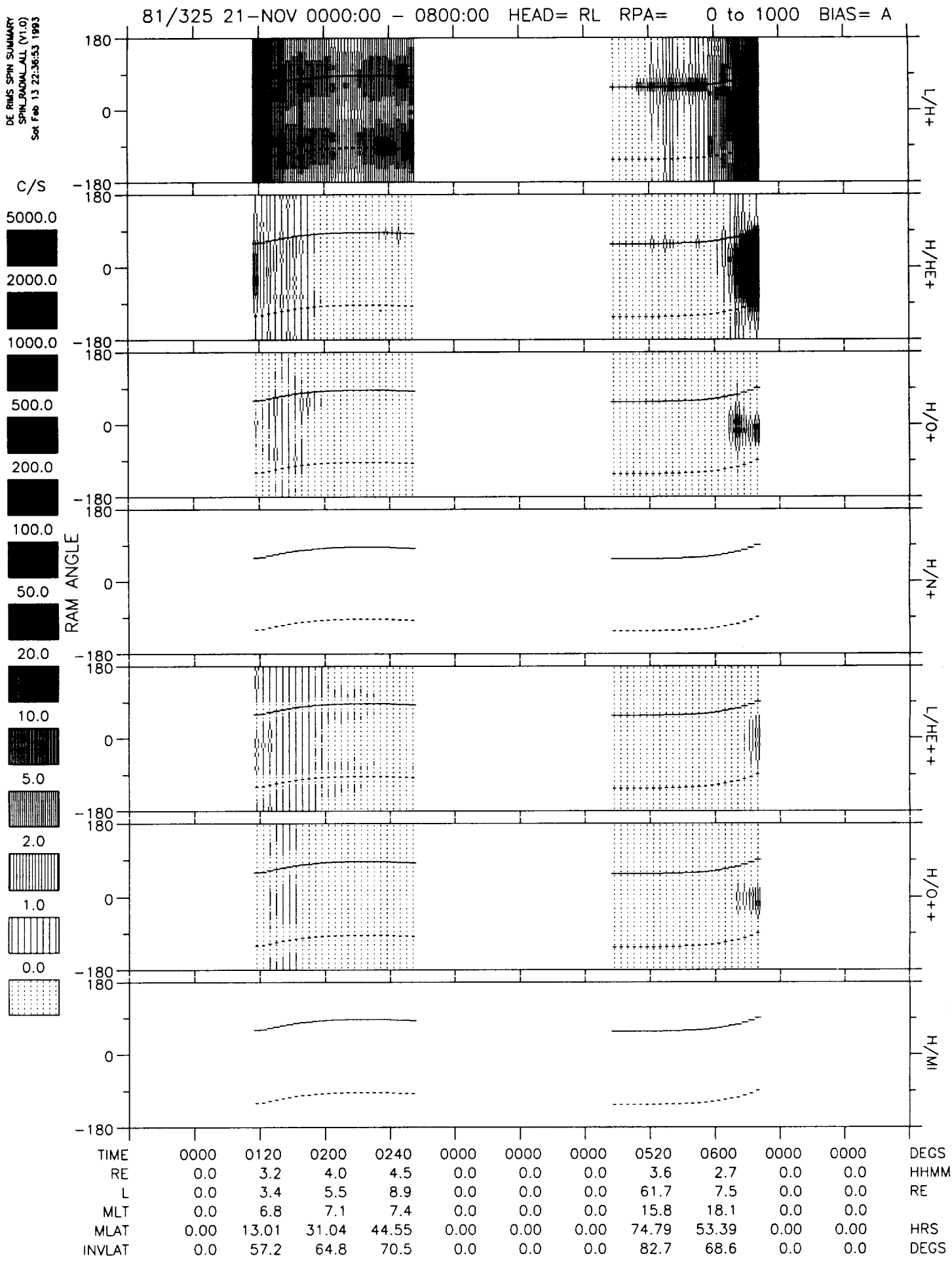

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 21:33:01 1993
81/323 19-NOV 1415:00 - 2215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 1655 1735 1815 1855 1935 2015 2055 0000 DEGS
RE 0.0 0.0 0.0 4.6 4.6 4.4 3.8 3.0 1.7 1.4 0.0 HHMM
L 0.0 0.0 0.0 19.3 33.9 78.2 -0.0 19.0 2.0 7.0 0.0 RE
MLT 0.0 0.0 0.0 5.7 5.0 3.8 0.4 20.5 19.1 7.6 0.0
MLAT 0.00 0.00 0.00 60.46 67.66 75.17 79.46 68.45 27.71 ***** 0.00 HRS
INVLAT 0.0 0.0 0.0 76.8 80.1 83.5 -0.0 76.7 45.4 67.8 0.0 DEGS

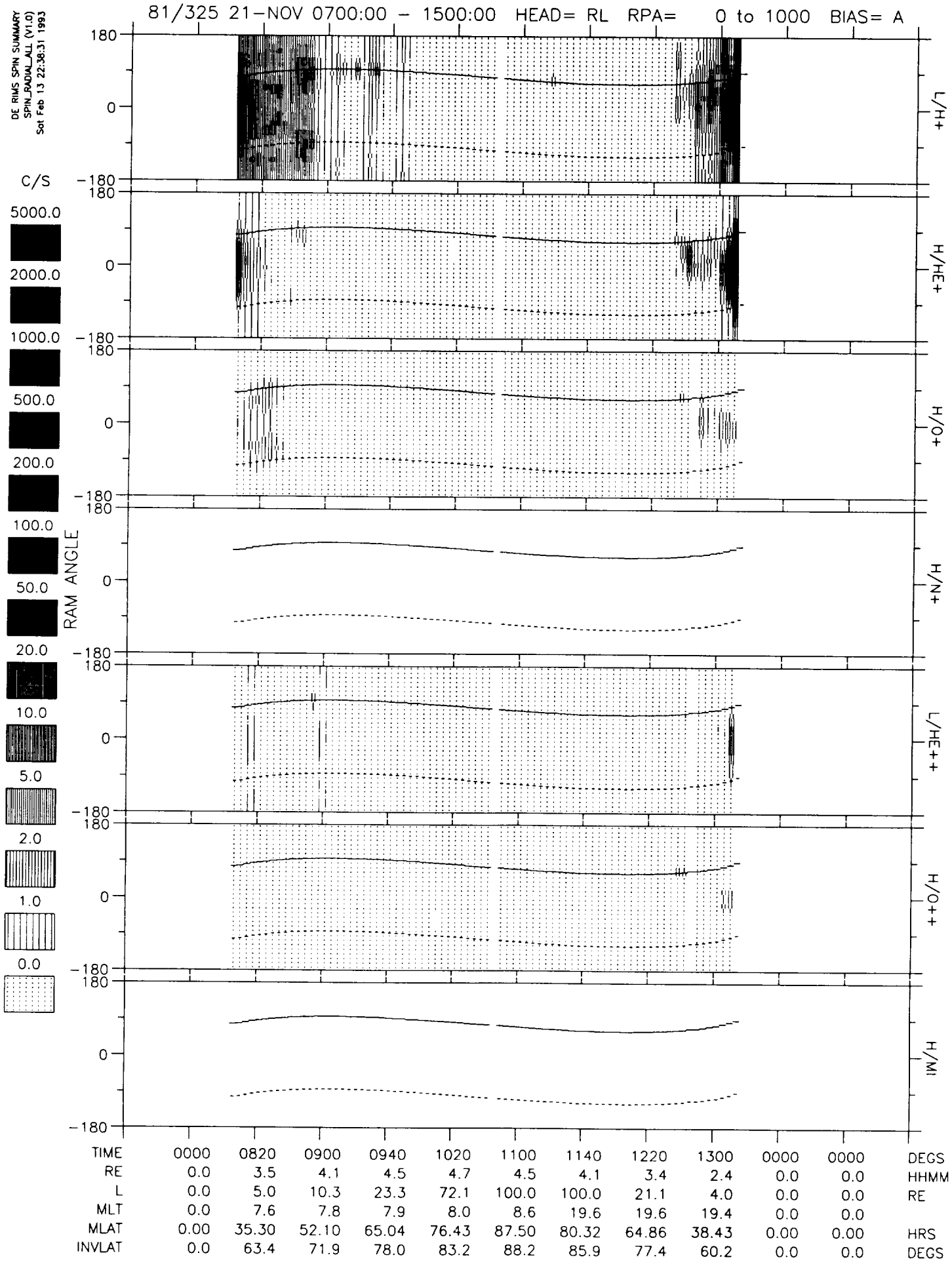

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 21:34:56 1993
81/323 19-NOV 2030:00 - 0430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2110 0000 2230 2310 2350 0030 0000 0000 0230 0310 0000 DEGS
RE 1.8 0.0 3.9 4.4 4.6 4.6 0.0 0.0 2.8 1.5 0.0 HHMM
L 2.5 0.0 4.9 7.7 12.1 21.5 0.0 0.0 20.2 1.7 0.0 RE
MLT 7.0 0.0 6.7 6.7 6.9 7.2 0.0 0.0 17.4 18.8 0.0
MLAT ***** 0.00 26.91 39.63 50.62 61.34 0.00 0.00 67.90 17.35 0.00 HRS
INVLAT 50.3 0.0 63.3 68.8 73.3 77.5 0.0 0.0 77.2 39.3 0.0 DEGS

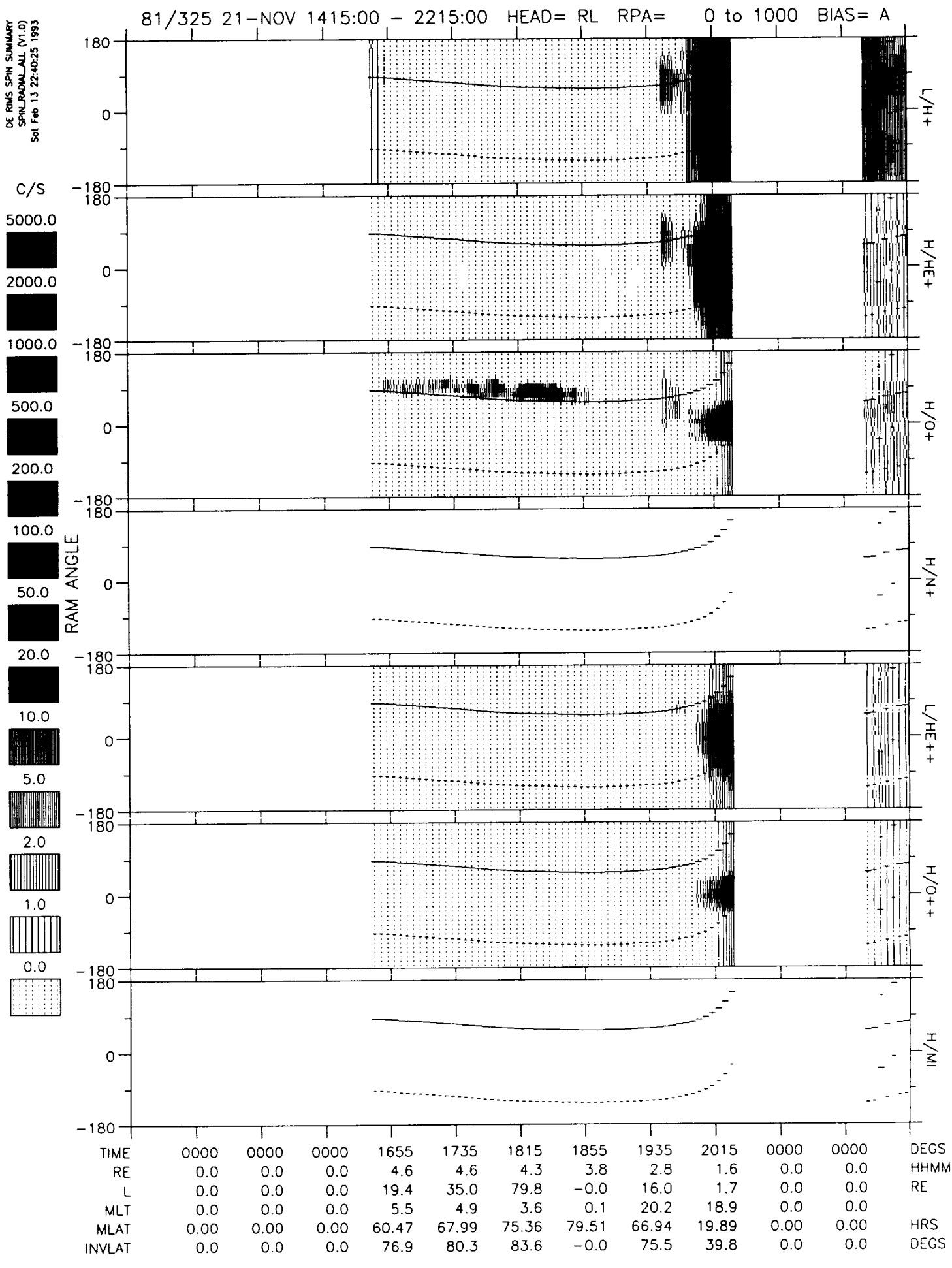

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 21:36:49 1993
81/324 20-NOV 0330:00 - 1130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0810 0850 0930 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 4.2 3.6 2.6 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 100.0 29.9 5.2 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 15.1 18.1 18.9 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 80.45 68.45 44.19 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 85.8 79.5 64.0 0.0 0.0 DEGS

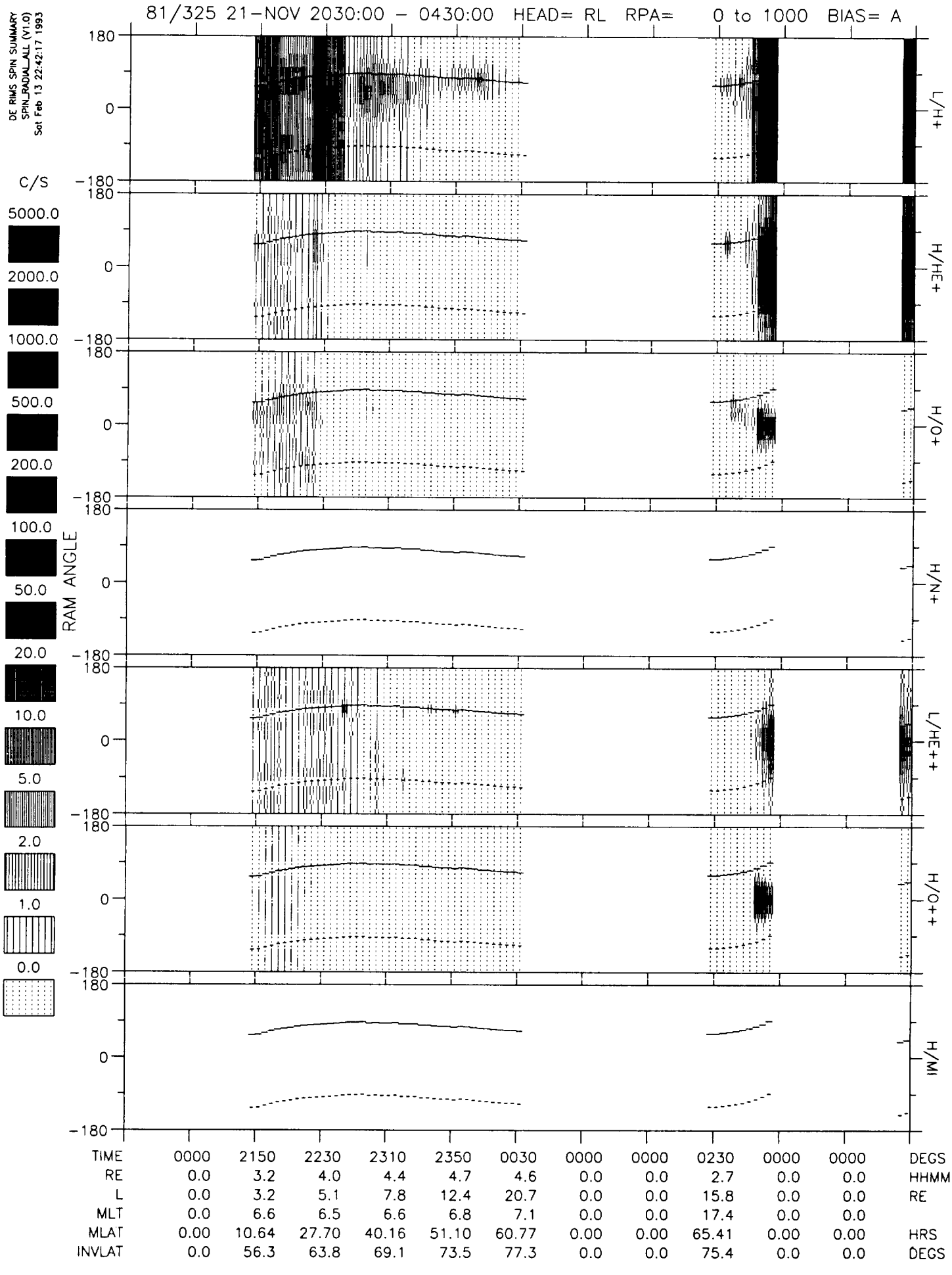

81/324 20-NOV 1030:00 - 1830:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 21:38:38 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1110 1150 1230 1310 1350 1430 1510 1550 1630 0000 0000 DEGS
RE 2.5 3.5 4.2 4.6 4.7 4.5 4.1 3.4 2.3 0.0 0.0 HHMM
L 2.7 6.1 12.7 26.6 63.7 100.0 100.0 24.3 4.1 0.0 0.0 RE
MLT 7.3 7.1 6.9 6.4 5.4 3.1 23.1 20.9 19.7 0.0 0.0
MLAT 14.90 40.34 55.06 65.72 74.26 80.39 78.97 67.58 42.42 0.00 0.00 HRS
INVLAT 52.7 66.1 73.7 78.8 82.8 85.8 85.2 78.3 60.3 0.0 0.0 DEGS

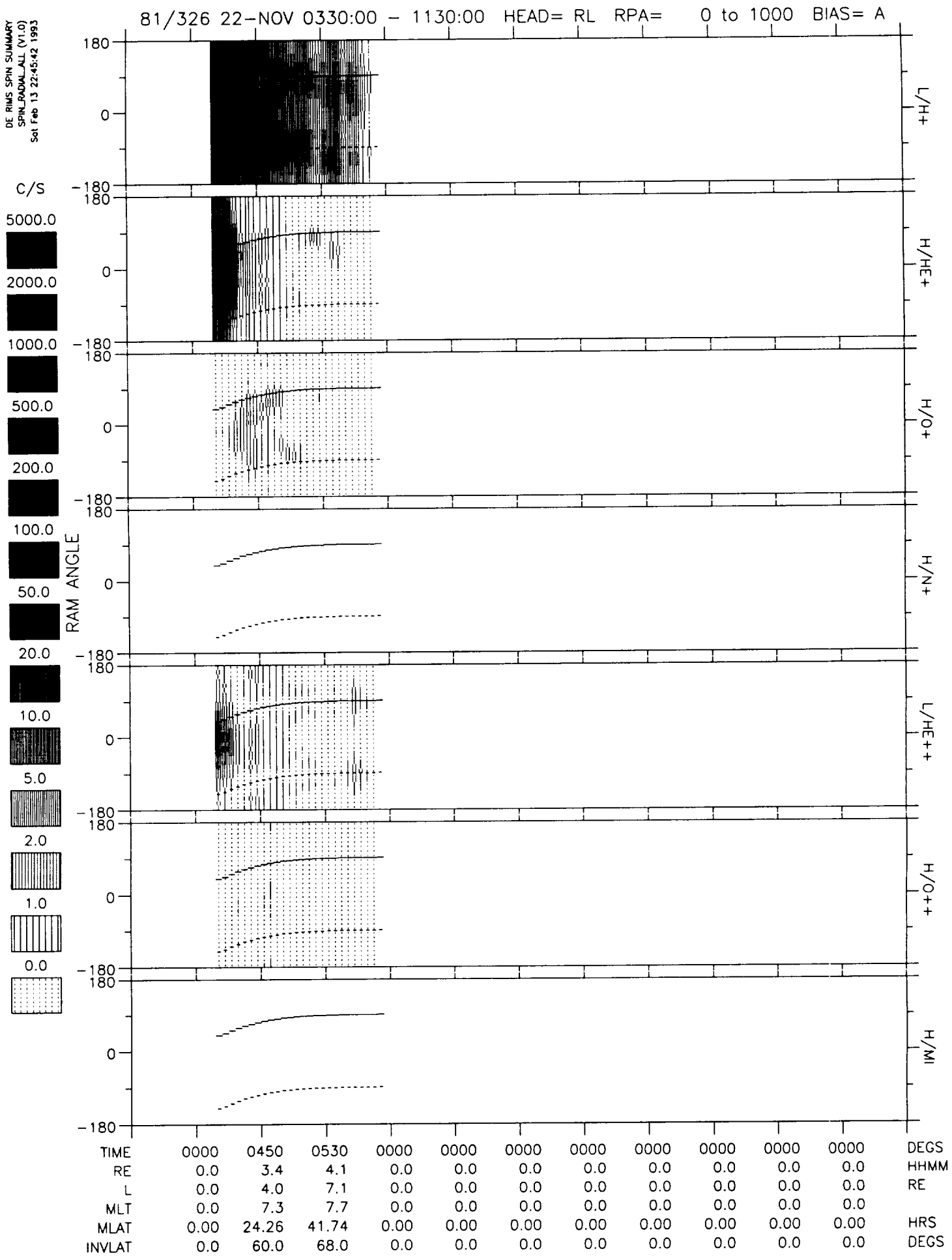

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 21:40:28 1993
81/324 20-NOV 1715:00 - 0115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 2315 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.5 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 11.6 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 18.7 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 63.25 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 72.9 0.0 0.0 DEGS

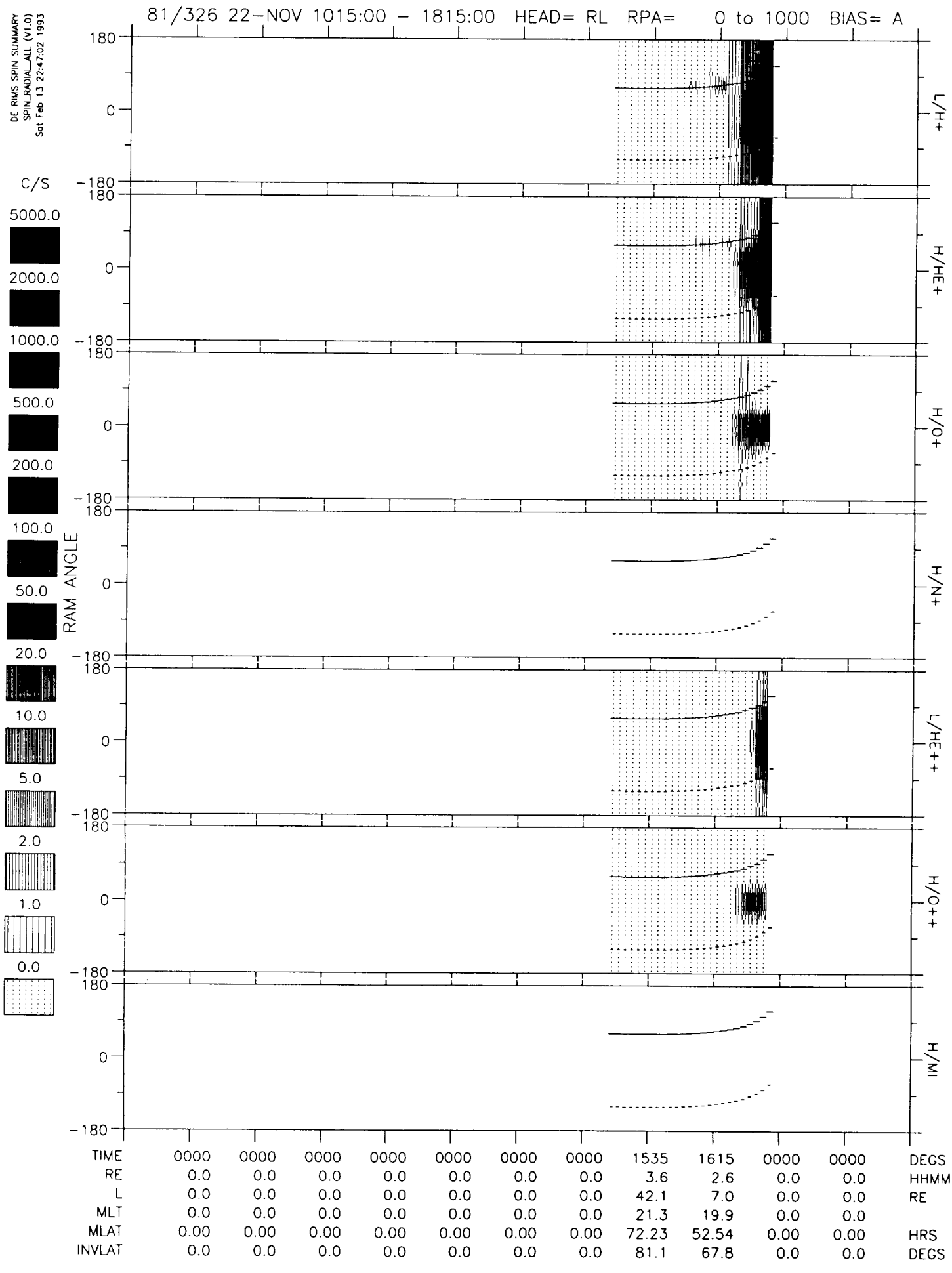

81/325 21-NOV 0000:00 - 0800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 22:36:53 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0120 0200 0240 0000 0000 0000 0520 0600 0000 0000 DEGS
RE 0.0 3.2 4.0 4.5 0.0 0.0 0.0 3.6 2.7 0.0 0.0 HHMM
L 0.0 3.4 5.5 8.9 0.0 0.0 0.0 61.7 7.5 0.0 0.0 RE
MLT 0.0 6.8 7.1 7.4 0.0 0.0 0.0 15.8 18.1 0.0 0.0
MLAT 0.00 13.01 31.04 44.55 0.00 0.00 0.00 74.79 53.39 0.00 0.00 HRS
INVLAT 0.0 57.2 64.8 70.5 0.0 0.0 0.0 82.7 68.6 0.0 0.0 DEGS

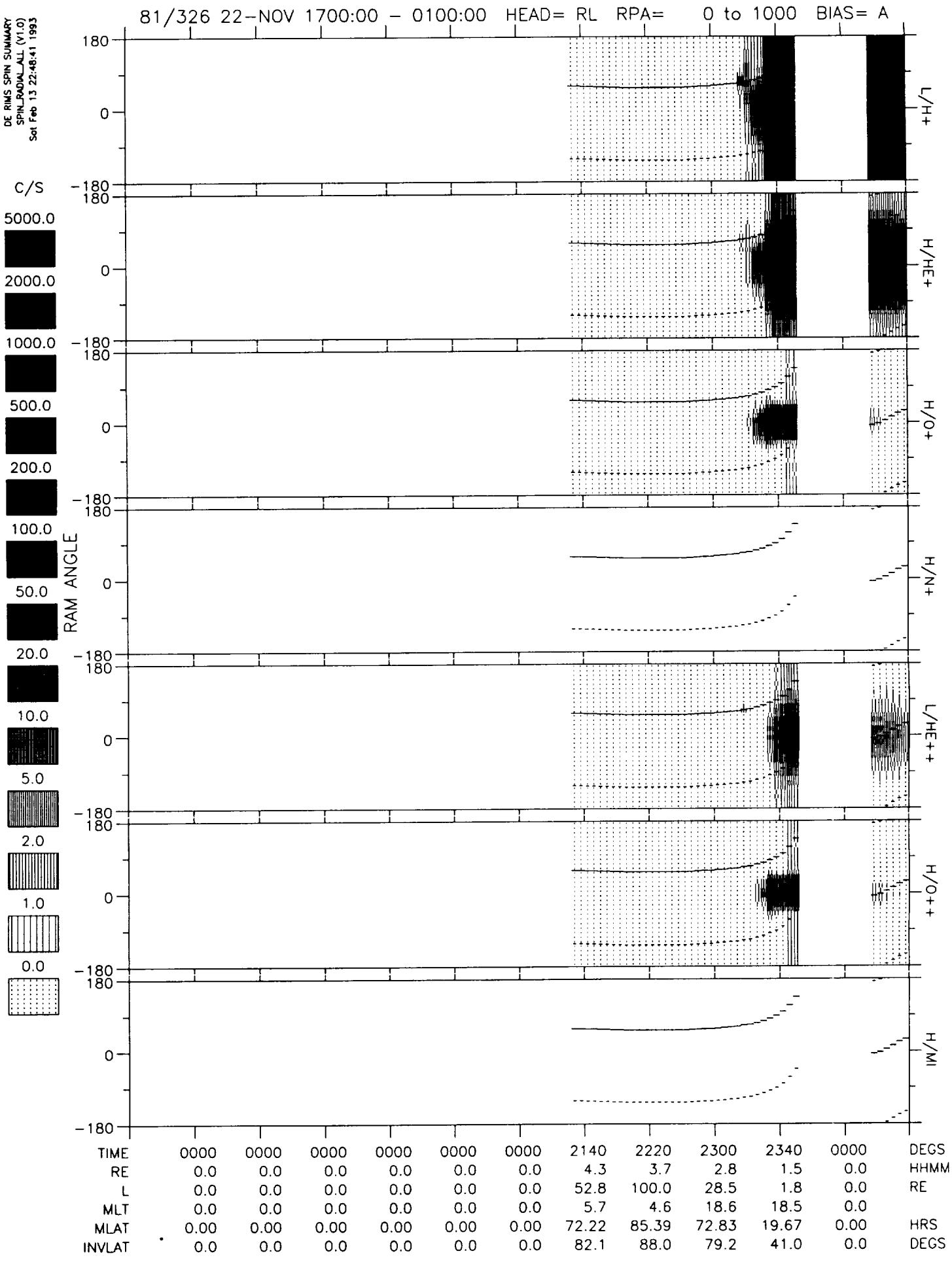

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 22:38:31 1993
81/325 21-NOV 0700:00 - 1500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0820 0900 0940 1020 1100 1140 1220 1300 0000 0000 DEGS
RE 0.0 3.5 4.1 4.5 4.7 4.5 4.1 3.4 2.4 0.0 0.0 HHMM
L 0.0 5.0 10.3 23.3 72.1 100.0 100.0 21.1 4.0 0.0 0.0 RE
MLT 0.0 7.6 7.8 7.9 8.0 8.6 19.6 19.6 19.4 0.0 0.0
MLAT 0.00 35.30 52.10 65.04 76.43 87.50 80.32 64.86 38.43 0.00 0.00 HRS
INVLAT 0.0 63.4 71.9 78.0 83.2 88.2 85.9 77.4 60.2 0.0 0.0 DEGS

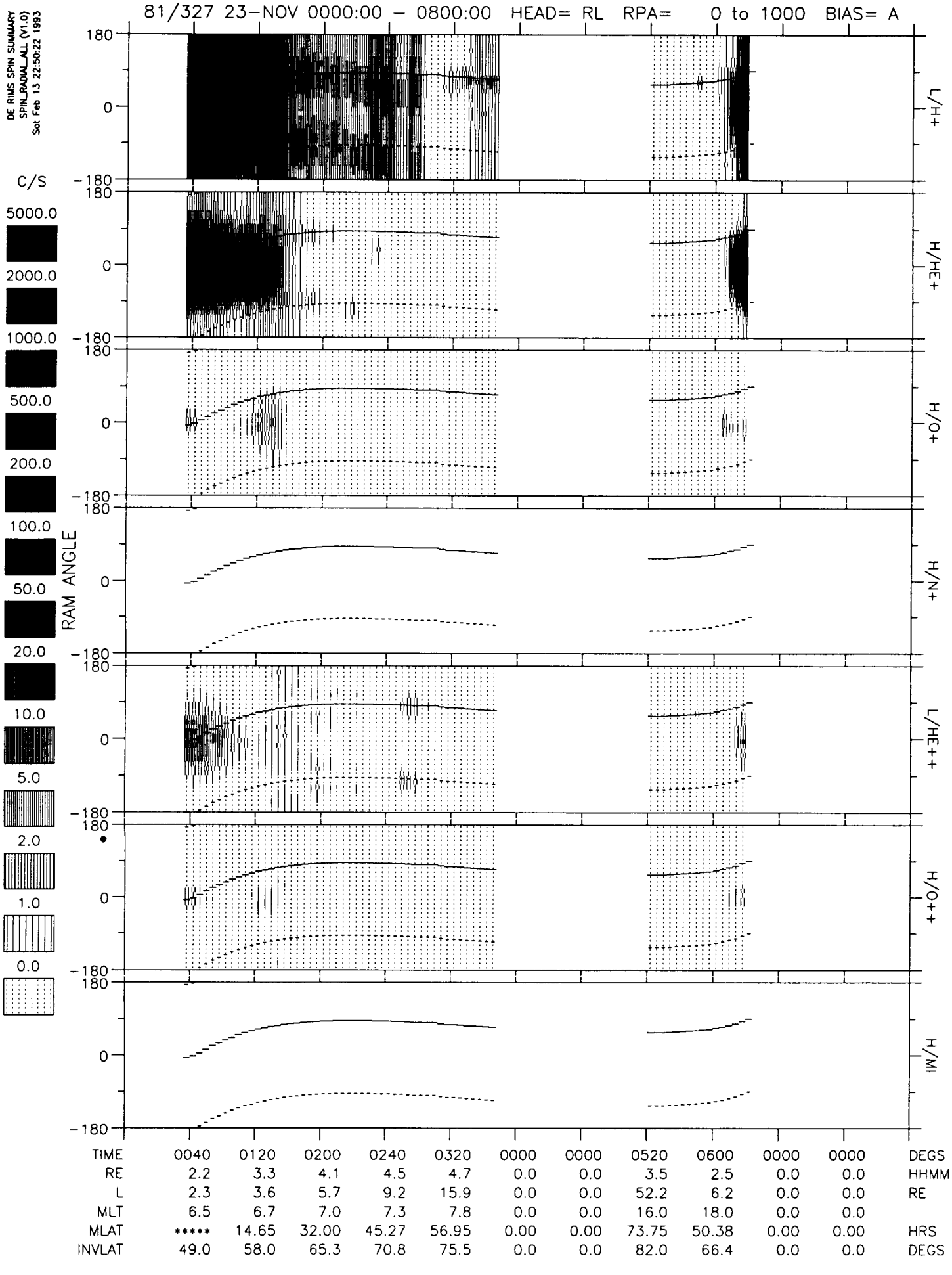

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 22:40:25 1993
81/325 21-NOV 1415:00 - 2215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 1655 1735 1815 1855 1935 2015 0000 0000 DEGS
RE 0.0 0.0 0.0 4.6 4.6 4.3 3.8 2.8 1.6 0.0 0.0 HHMM
L 0.0 0.0 0.0 19.4 35.0 79.8 -0.0 16.0 1.7 0.0 0.0 RE
MLT 0.0 0.0 0.0 5.5 4.9 3.6 0.1 20.2 18.9 0.0 0.0
MLAT 0.00 0.00 0.00 60.47 67.99 75.36 79.51 66.94 19.89 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 76.9 80.3 83.6 -0.0 75.5 39.8 0.0 0.0 DEGS

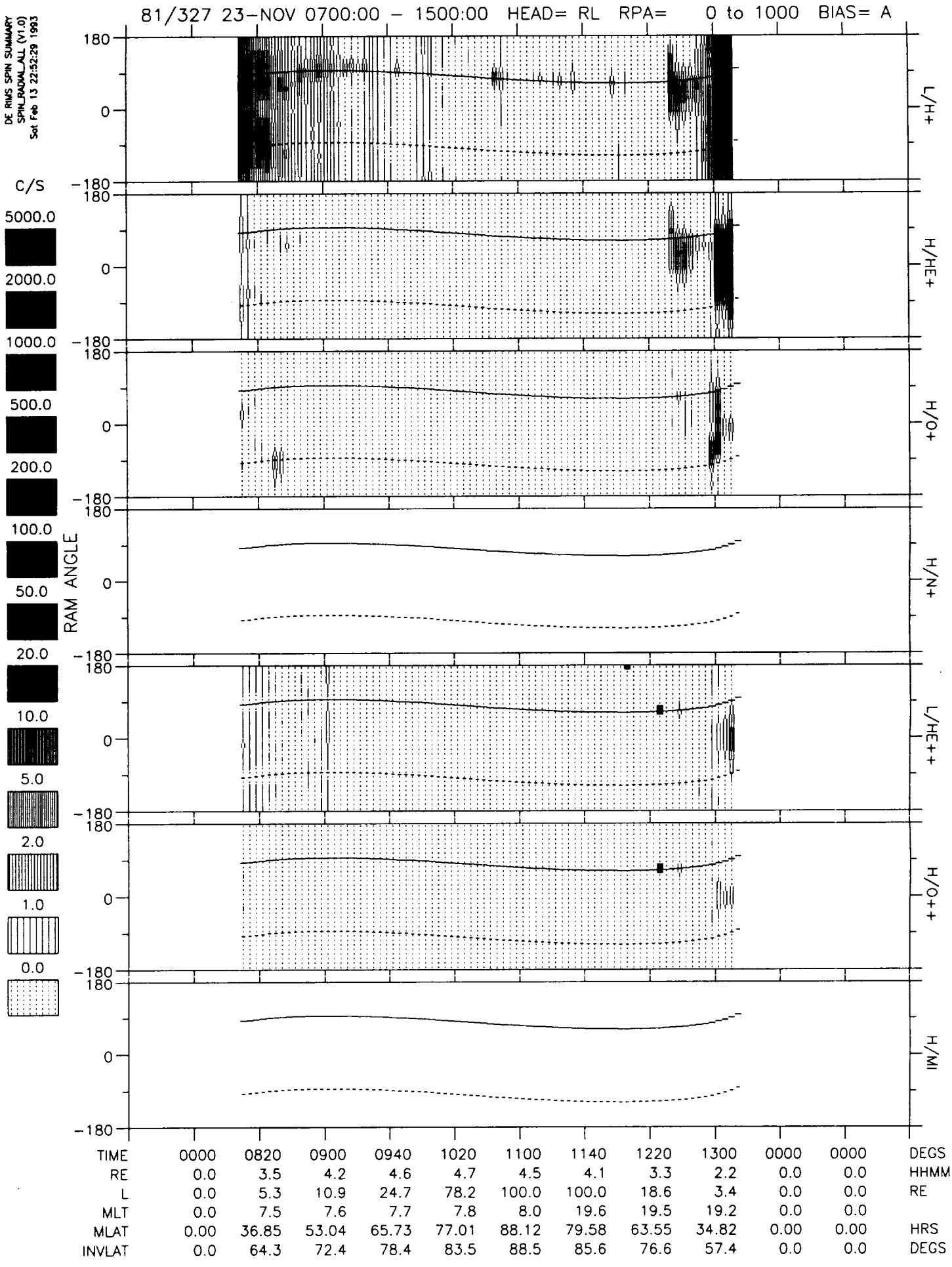

81/325 21-NOV 2030:00 - 0430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 22:42:17 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 2150 2230 2310 2350 0030 0000 0000 0230 0000 0000 DEGS
RE 0.0 3.2 4.0 4.4 4.7 4.6 0.0 0.0 2.7 0.0 0.0 HHMM
L 0.0 3.2 5.1 7.8 12.4 20.7 0.0 0.0 15.8 0.0 0.0 RE
MLT 0.0 6.6 6.5 6.6 6.8 7.1 0.0 0.0 17.4 0.0 0.0
MLAT 0.00 10.64 27.70 40.16 51.10 60.77 0.00 0.00 65.41 0.00 0.00 HRS
INVLAT 0.0 56.3 63.8 69.1 73.5 77.3 0.0 0.0 75.4 0.0 0.0 DEGS

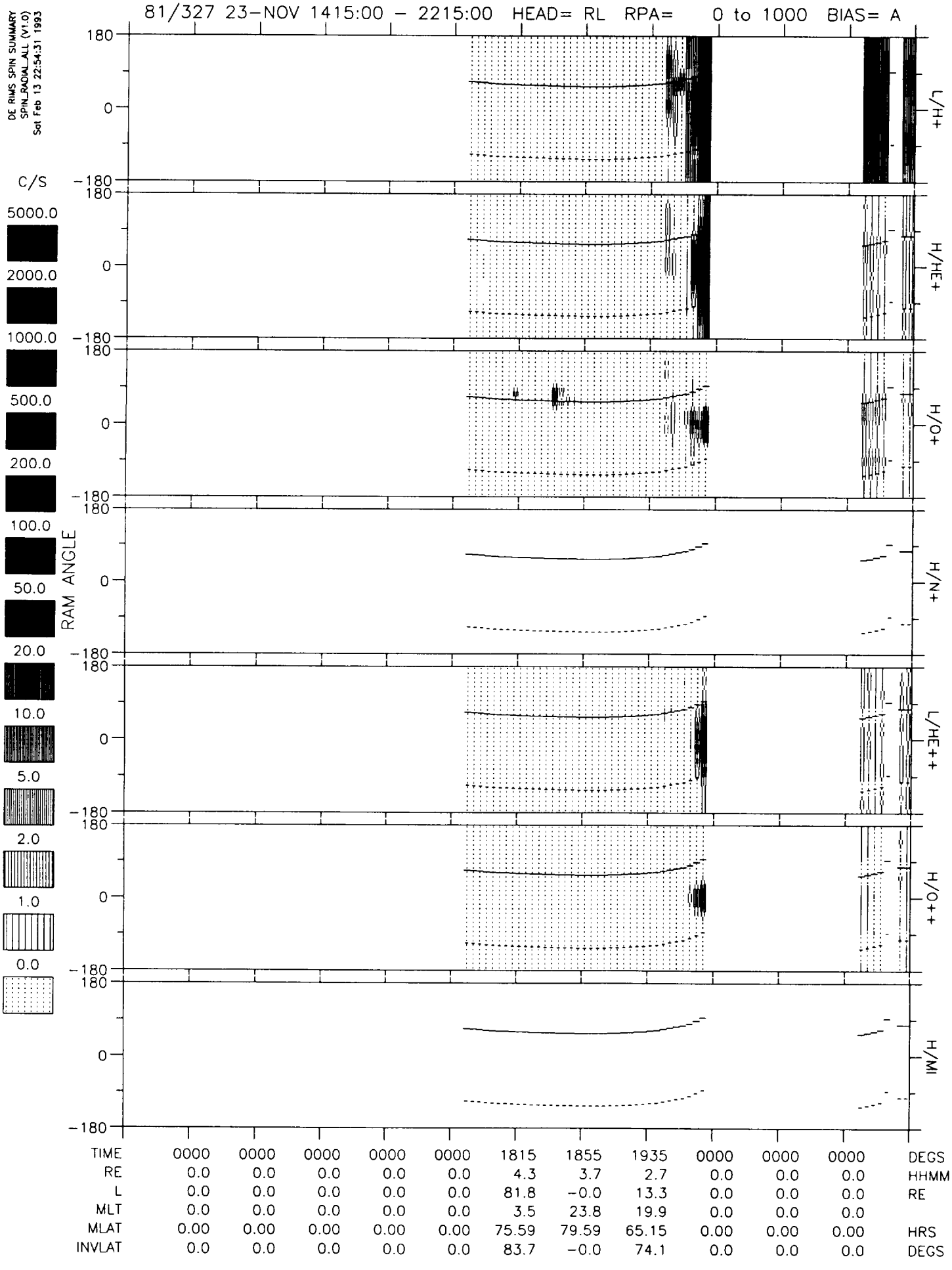

81/326 22-NOV 0330:00 - 1130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 22:45:42 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0450 0530 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 3.4 4.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 4.0 7.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 7.3 7.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 24.26 41.74 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 60.0 68.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

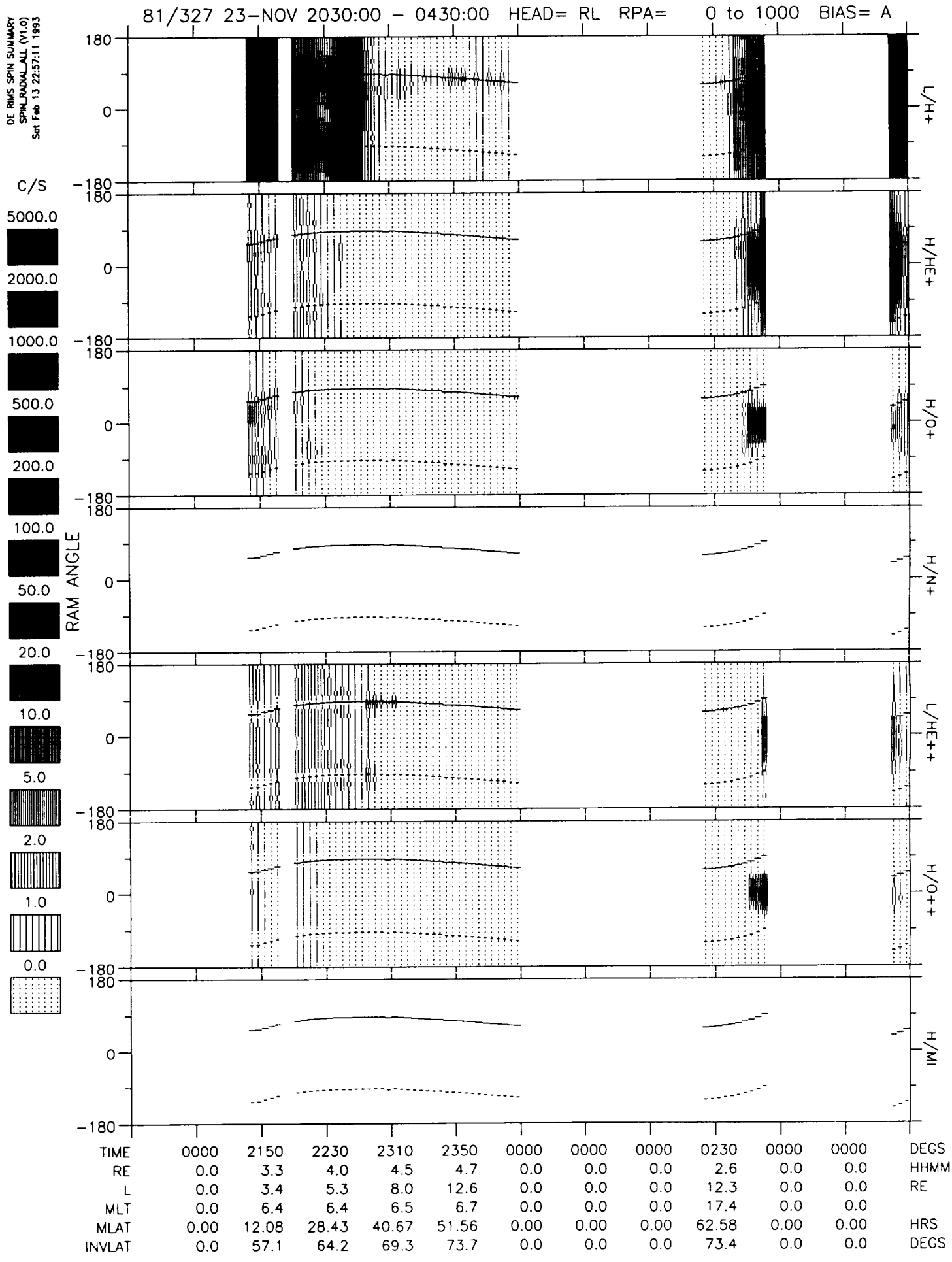

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 22:47:02 1993
81/326 22-NOV 1015:00 - 1815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0000 0000 0000 0000 0000 0000 0000 1535 1615 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.6 2.6 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 42.1 7.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 21.3 19.9 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 72.23 52.54 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 81.1 67.8 0.0 0.0 DEGS

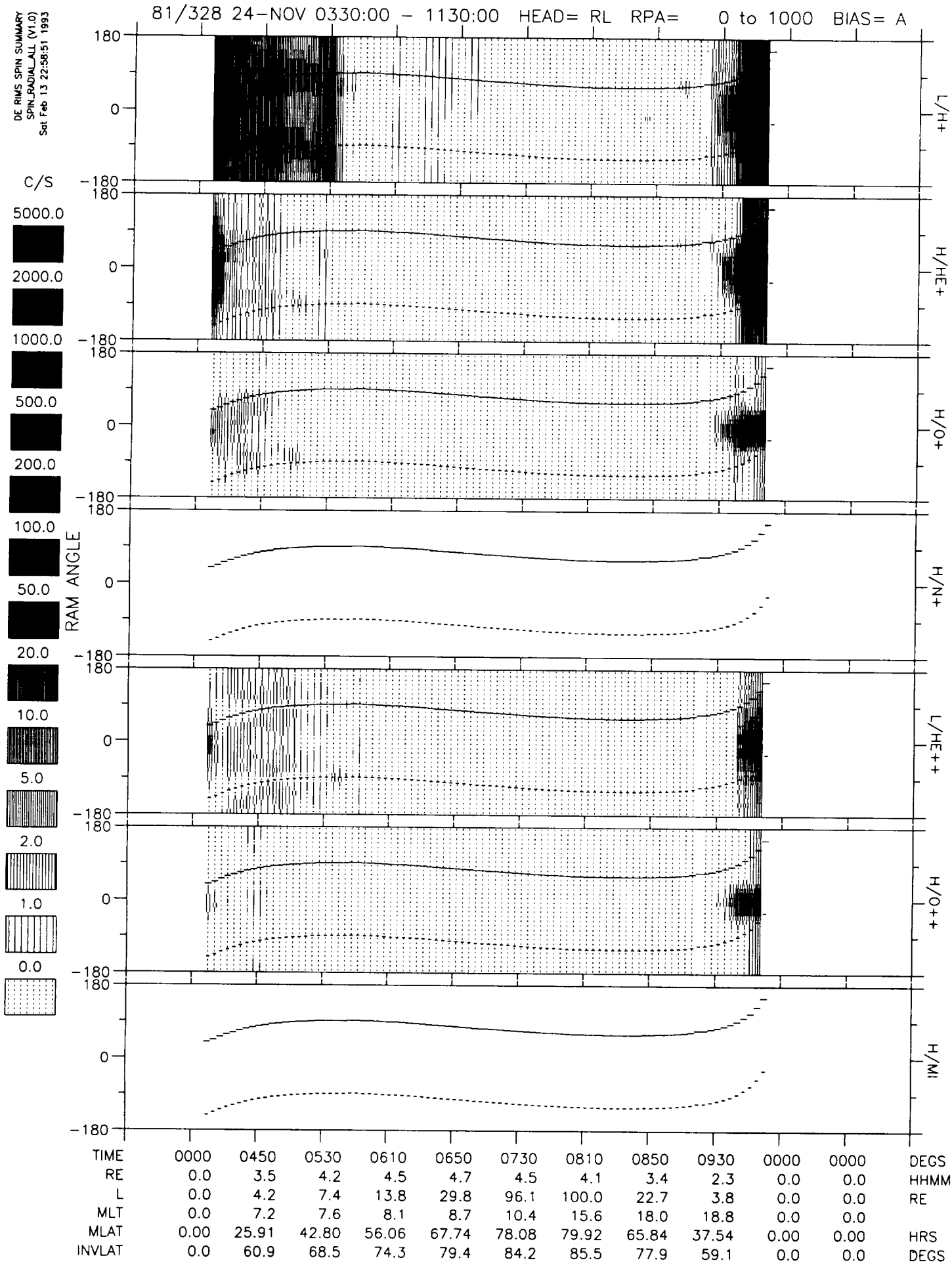

81/326 22-NOV 1700:00 - 0100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 22:48:41 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 2140 2220 2300 2340 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 4.3 3.7 2.8 1.5 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 52.8 100.0 28.5 1.8 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 5.7 4.6 18.6 18.5 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 72.22 85.39 72.83 19.67 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 82.1 88.0 79.2 41.0 0.0 DEGS

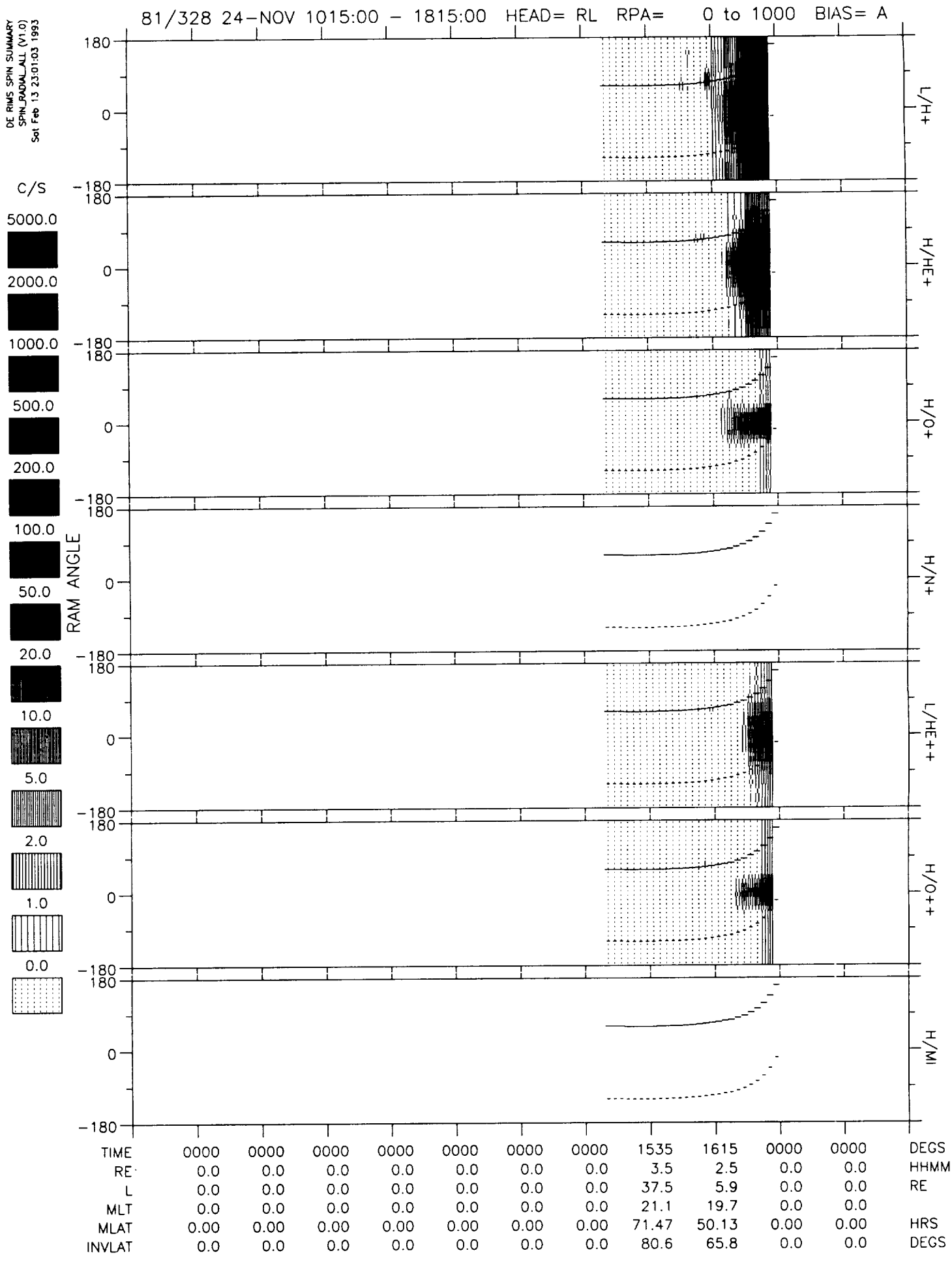

81/327 23-NOV 0000:00 – 0800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 22:50:22 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0040 0120 0200 0240 0320 0000 0000 0520 0600 0000 0000 DEGS
RE 2.2 3.3 4.1 4.5 4.7 0.0 0.0 3.5 2.5 0.0 0.0 HHMM
L 2.3 3.6 5.7 9.2 15.9 0.0 0.0 52.2 6.2 0.0 0.0 RE
MLT 6.5 6.7 7.0 7.3 7.8 0.0 0.0 16.0 18.0 0.0 0.0
MLAT ***** 14.65 32.00 45.27 56.95 0.00 0.00 73.75 50.38 0.00 0.00 HRS
INVLAT 49.0 58.0 65.3 70.8 75.5 0.0 0.0 82.0 66.4 0.0 0.0 DEGS

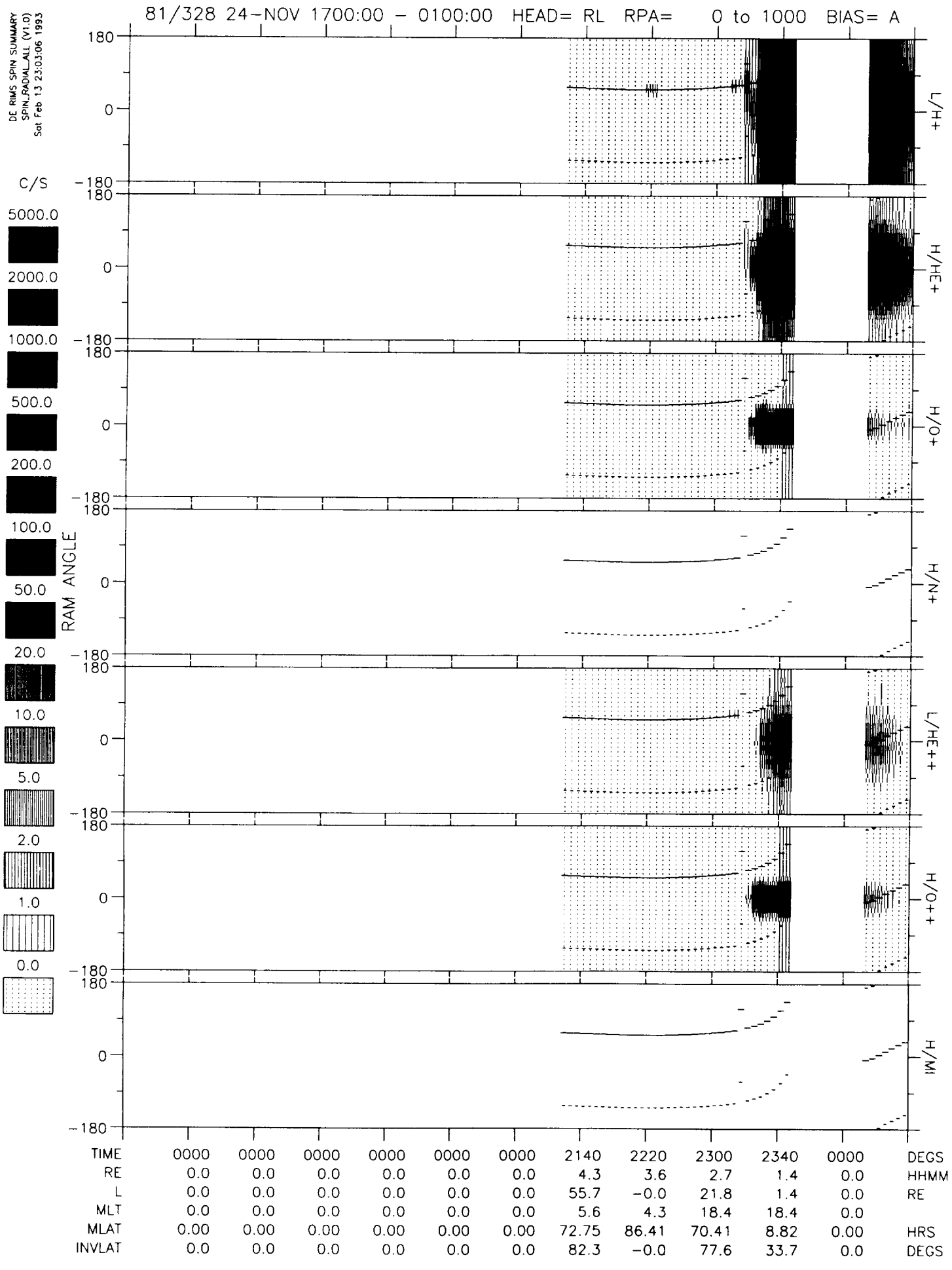

81/327 23-NOV 0700:00 – 1500:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 22:52:29 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0820 0900 0940 1020 1100 1140 1220 1300 0000 0000 DEGS
RE 0.0 3.5 4.2 4.6 4.7 4.5 4.1 3.3 2.2 0.0 0.0 HHMM
L 0.0 5.3 10.9 24.7 78.2 100.0 100.0 18.6 3.4 0.0 0.0 RE
MLT 0.0 7.5 7.6 7.7 7.8 8.0 19.6 19.5 19.2 0.0 0.0
MLAT 0.00 36.85 53.04 65.73 77.01 88.12 79.58 63.55 34.82 0.00 0.00 HRS
INVLAT 0.0 64.3 72.4 78.4 83.5 88.5 85.6 76.6 57.4 0.0 0.0 DEGS

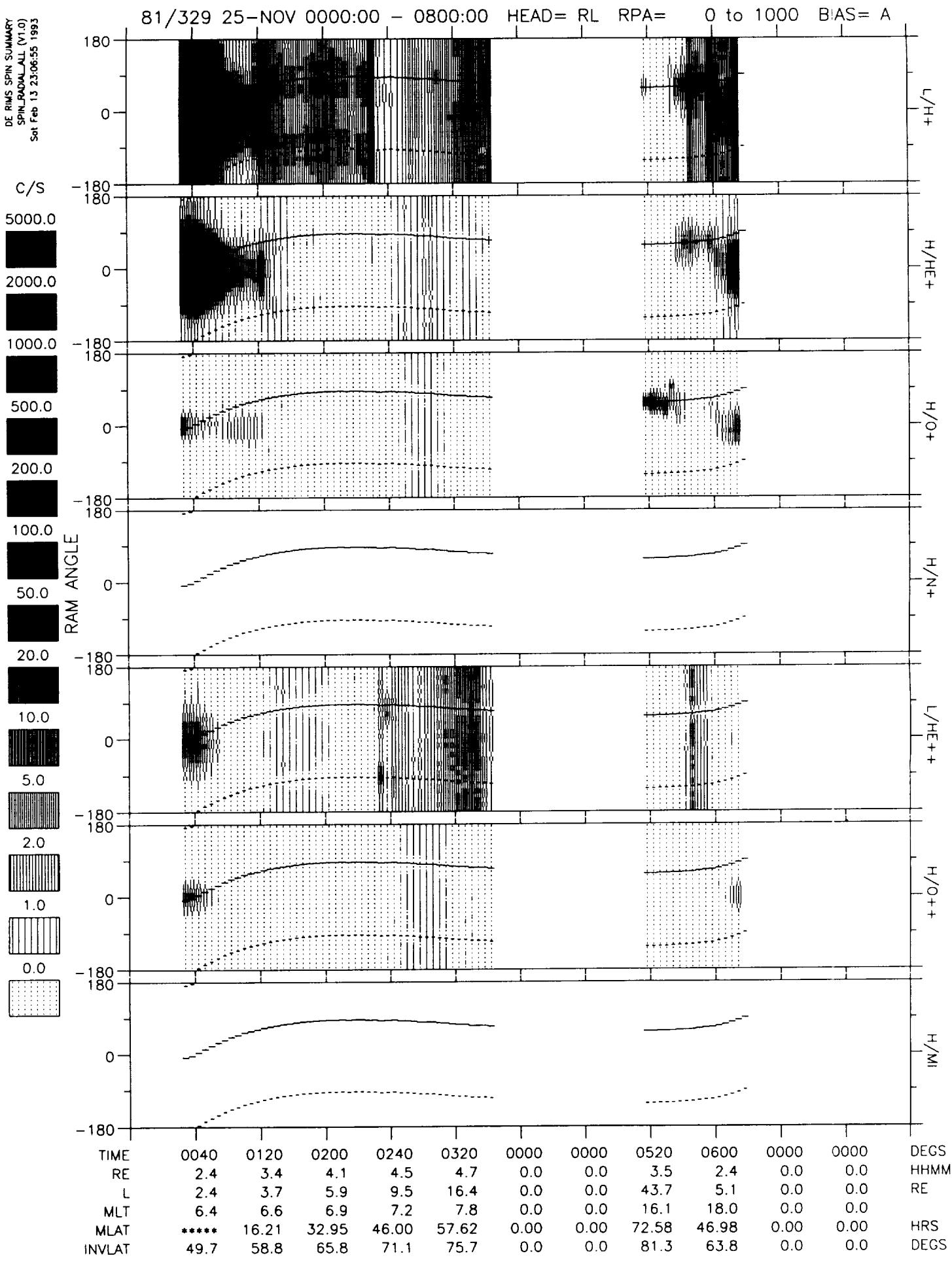

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 22:54:31 1993
81/327 23-NOV 1415:00 - 2215:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 1815 1855 1935 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.3 3.7 2.7 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 81.8 -0.0 13.3 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 3.5 23.8 19.9 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 75.59 79.59 65.15 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 83.7 -0.0 74.1 0.0 0.0 0.0 DEGS

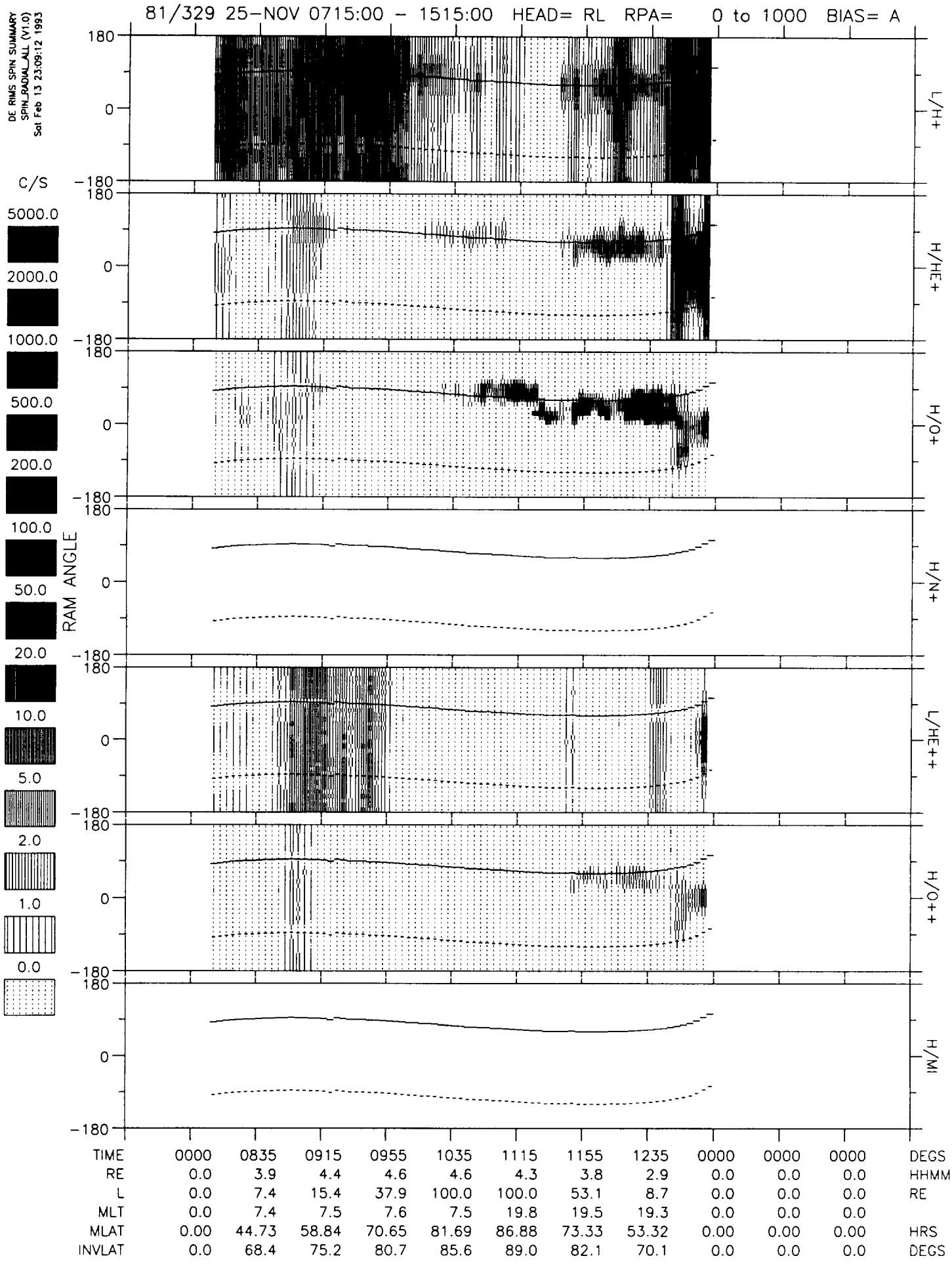

81/327 23-NOV 2030:00 - 0430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 22:57:11 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 2150 2230 2310 2350 0000 0000 0000 0230 0000 0000 DEGS
RE 0.0 3.3 4.0 4.5 4.7 0.0 0.0 0.0 2.6 0.0 0.0 HHMM
L 0.0 3.4 5.3 8.0 12.6 0.0 0.0 0.0 12.3 0.0 0.0 RE
MLT 0.0 6.4 6.4 6.5 6.7 0.0 0.0 0.0 17.4 0.0 0.0
MLAT 0.00 12.08 28.43 40.67 51.56 0.00 0.00 0.00 62.58 0.00 0.00 HRS
INVLAT 0.0 57.1 64.2 69.3 73.7 0.0 0.0 0.0 73.4 0.0 0.0 DEGS

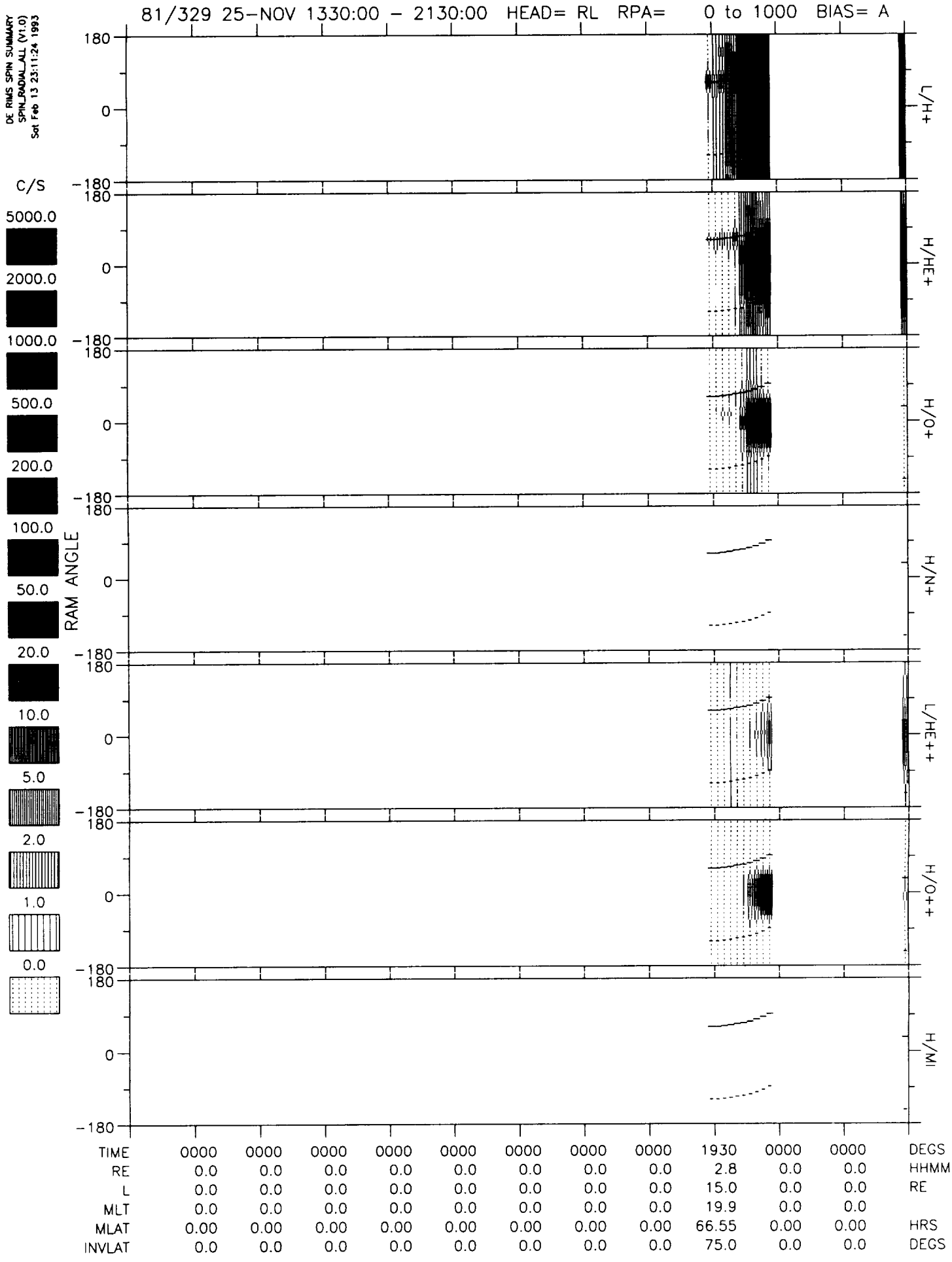

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 22:58:51 1993
81/328 24-NOV 0330:00 - 1130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0450 0530 0610 0650 0730 0810 0850 0930 0000 0000 DEGS
RE 0.0 3.5 4.2 4.5 4.7 4.5 4.1 3.4 2.3 0.0 0.0 HHMM
L 0.0 4.2 7.4 13.8 29.8 96.1 100.0 22.7 3.8 0.0 0.0 RE
MLT 0.0 7.2 7.6 8.1 8.7 10.4 15.6 18.0 18.8 0.0 0.0
MLAT 0.00 25.91 42.80 56.06 67.74 78.08 79.92 65.84 37.54 0.00 0.00 HRS
INVLAT 0.0 60.9 68.5 74.3 79.4 84.2 85.5 77.9 59.1 0.0 0.0 DEGS

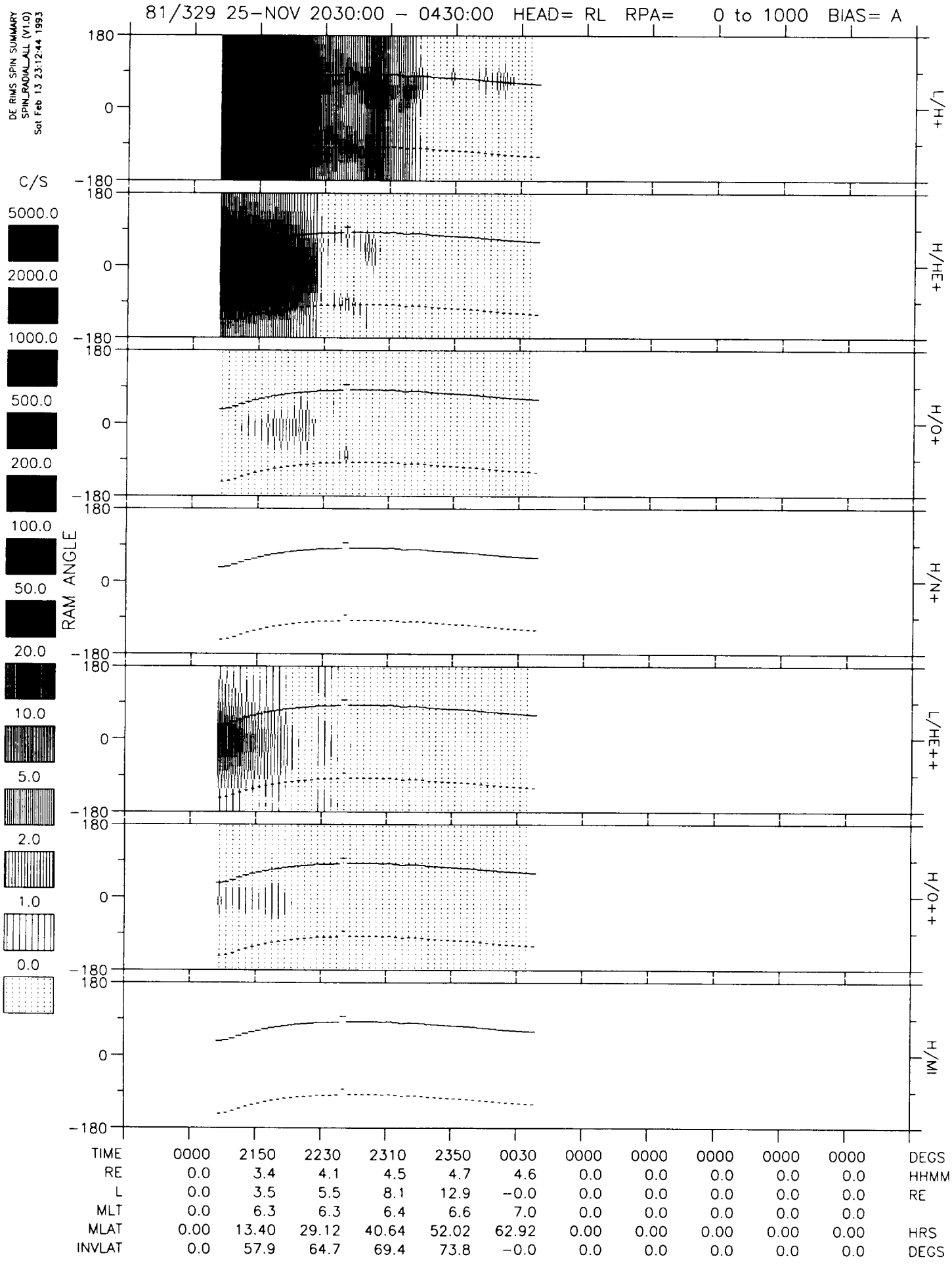

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 23:01:03 1993
81/328 24-NOV 1015:00 - 1815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
H+
H/HE+
H/O+
H/N+
H/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 1535 1615 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.5 2.5 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 37.5 5.9 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 21.1 19.7 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 71.47 50.13 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 80.6 65.8 0.0 0.0 DEGS

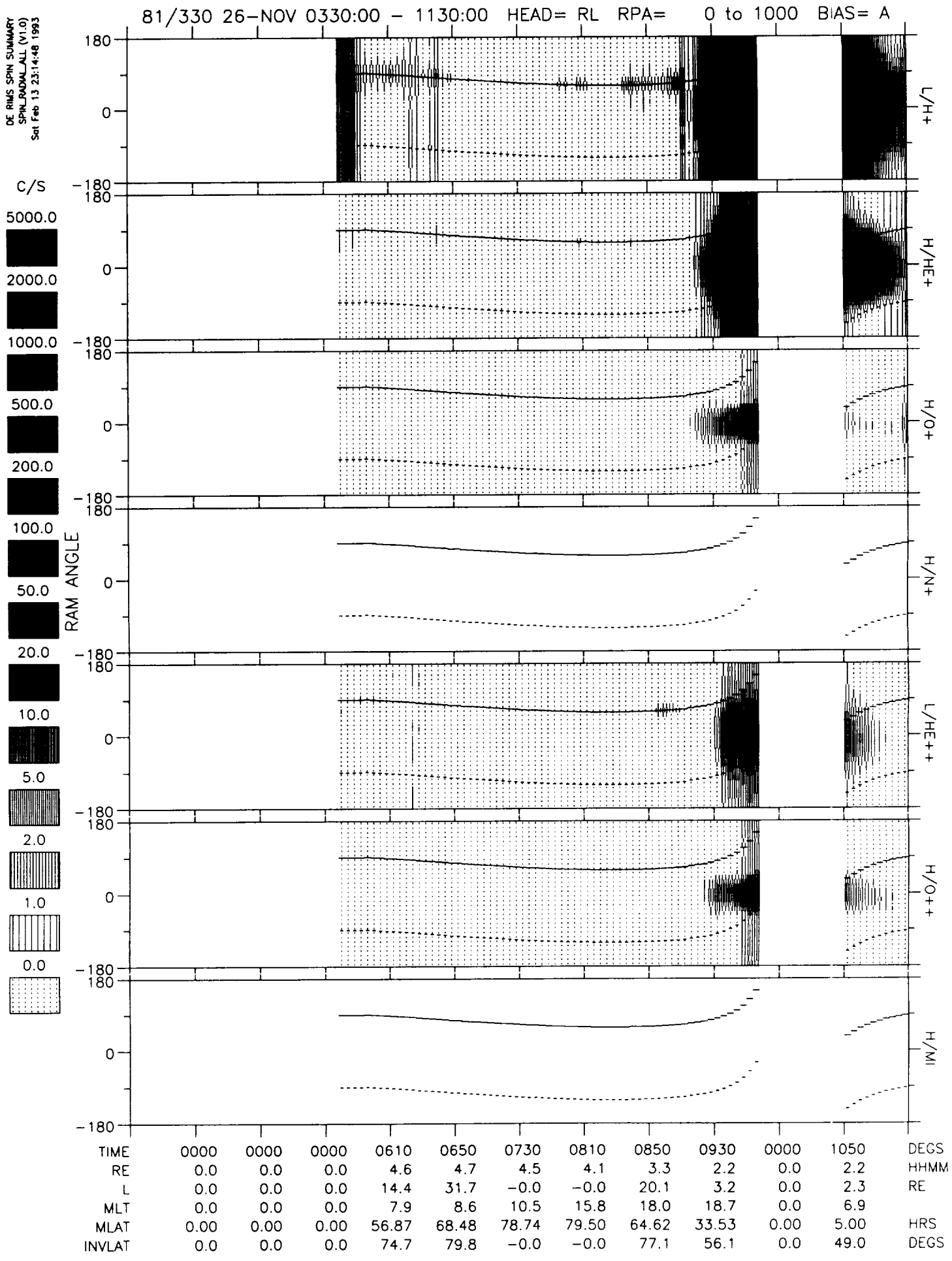

81/328 24-NOV 1700:00 - 0100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 23:03:06 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 2140 2220 2300 2340 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 4.3 3.6 2.7 1.4 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 55.7 -0.0 21.8 1.4 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 5.6 4.3 18.4 18.4 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 72.75 86.41 70.41 8.82 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 82.3 -0.0 77.6 33.7 0.0 DEGS

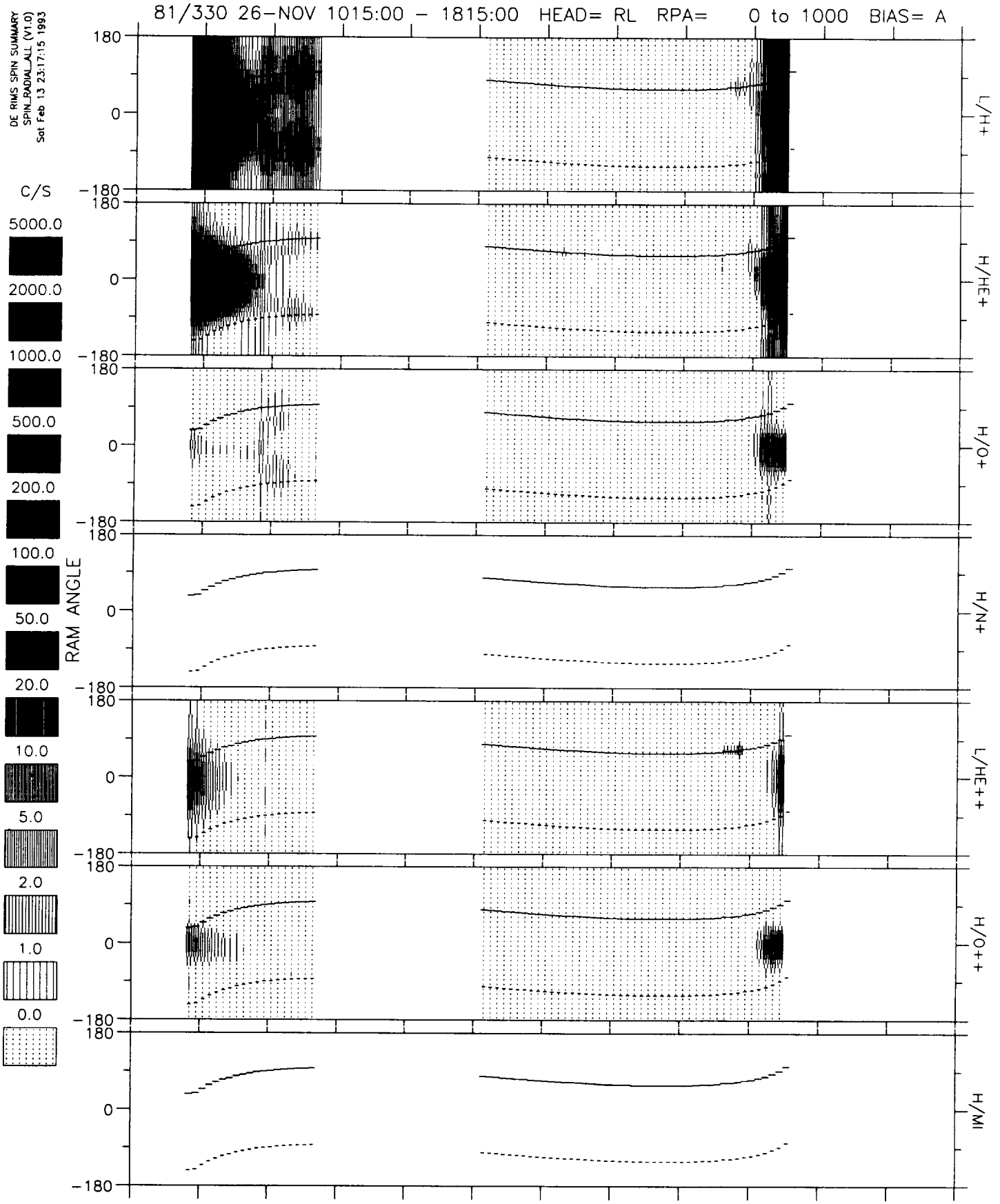

81/329 25-NOV 0000:00 - 0800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 23:06:55 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0040 0120 0200 0240 0320 0000 0000 0520 0600 0000 0000 DEGS
RE 2.4 3.4 4.1 4.5 4.7 0.0 0.0 3.5 2.4 0.0 0.0 HHMM
L 2.4 3.7 5.9 9.5 16.4 0.0 0.0 43.7 5.1 0.0 0.0 RE
MLT 6.4 6.6 6.9 7.2 7.8 0.0 0.0 16.1 18.0 0.0 0.0
MLAT ***** 16.21 32.95 46.00 57.62 0.00 0.00 72.58 46.98 0.00 0.00 HRS
INVLAT 49.7 58.8 65.8 71.1 75.7 0.0 0.0 81.3 63.8 0.0 0.0 DEGS

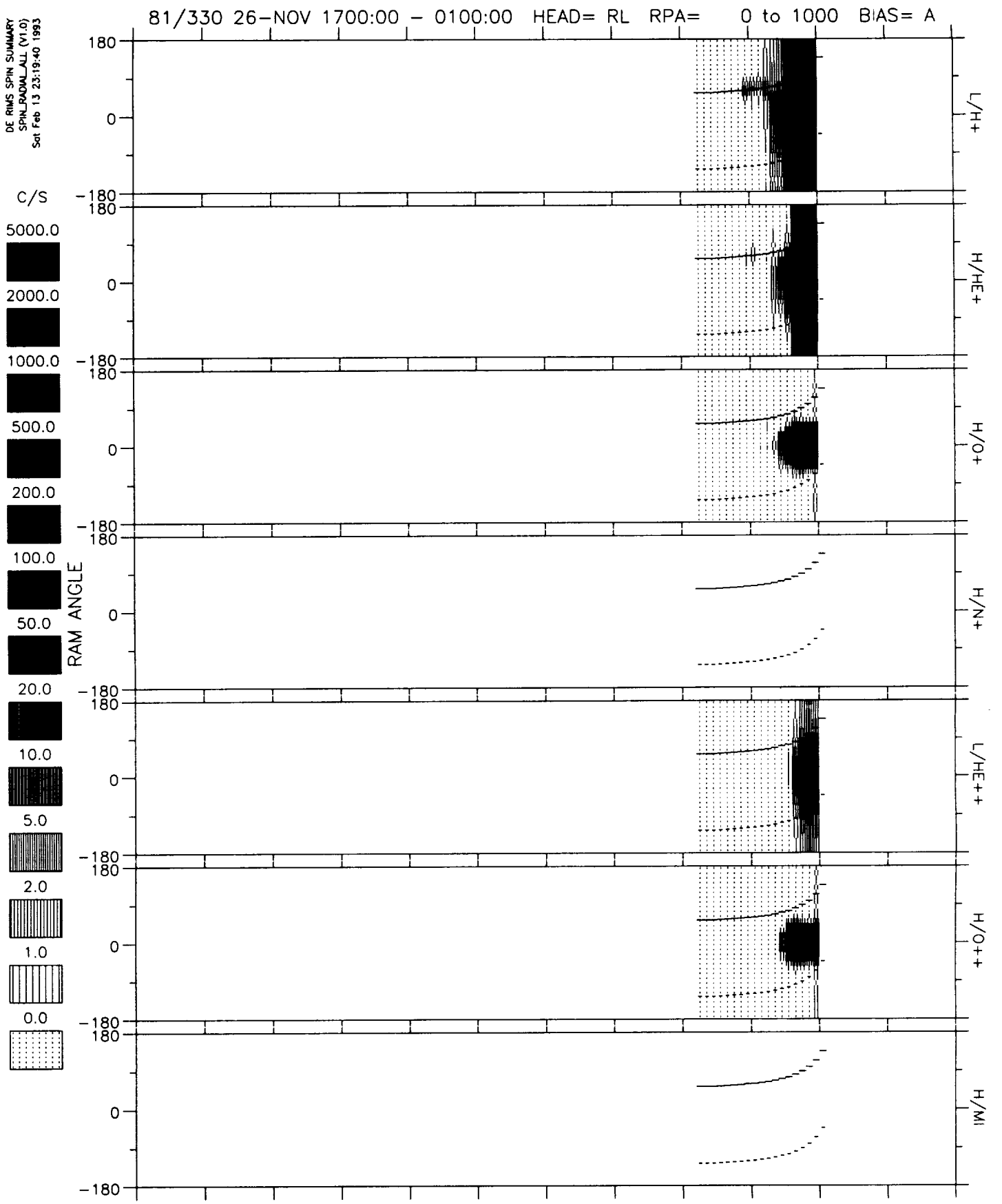

81/329 25-NOV 0715:00 - 1515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 23:09:12 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0835 0915 0955 1035 1115 1155 1235 0000 0000 0000 DEGS
RE 0.0 3.9 4.4 4.6 4.6 4.3 3.8 2.9 0.0 0.0 0.0 HHMM
L 0.0 7.4 15.4 37.9 100.0 100.0 53.1 8.7 0.0 0.0 0.0 RE
MLT 0.0 7.4 7.5 7.6 7.5 19.8 19.5 19.3 0.0 0.0 0.0
MLAT 0.00 44.73 58.84 70.65 81.69 86.88 73.33 53.32 0.00 0.00 0.00 HRS
INVLAT 0.0 68.4 75.2 80.7 85.6 89.0 82.1 70.1 0.0 0.0 0.0 DEGS

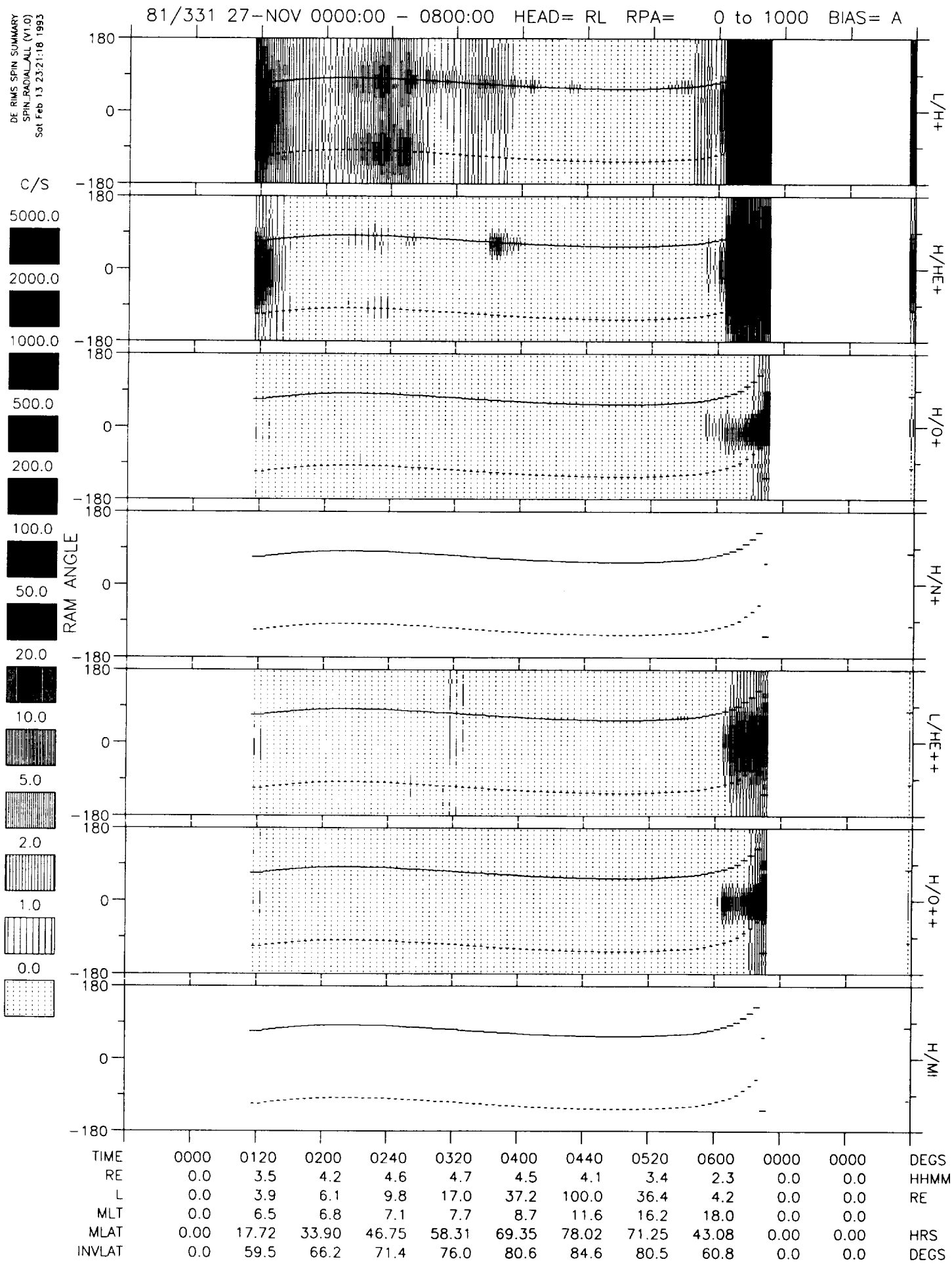

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 23:11:24 1993
81/329 25-NOV 1330:00 - 2130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 1930 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.8 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 15.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 19.9 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 66.55 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 75.0 0.0 0.0 DEGS

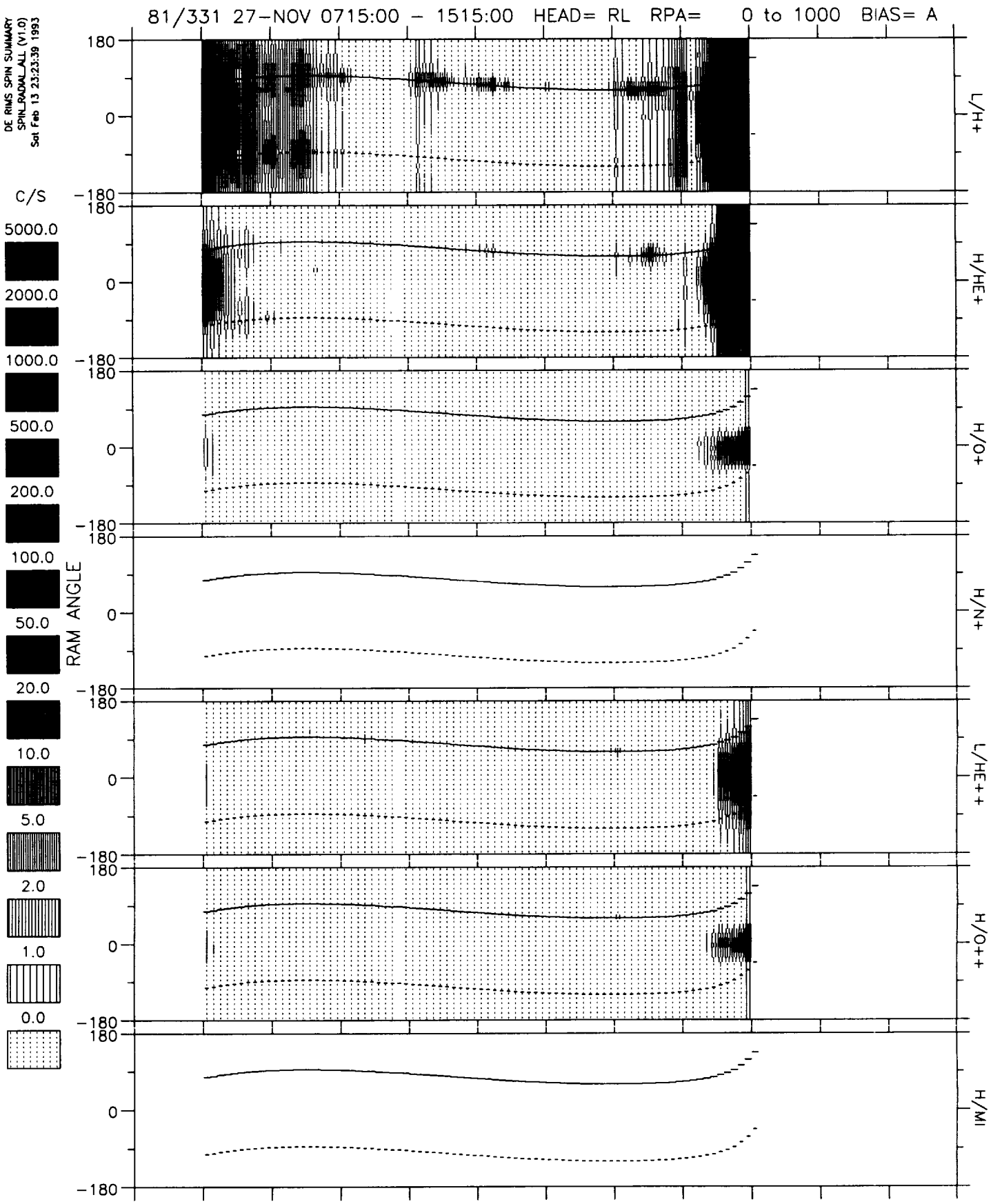

81/329 25-NOV 2030:00 - 0430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 23:12:44 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0000 2150 2230 2310 2350 0030 0000 0000 0000 0000 0000 DEGS
RE 0.0 3.4 4.1 4.5 4.7 4.6 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 3.5 5.5 8.1 12.9 -0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 6.3 6.3 6.4 6.6 7.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 13.40 29.12 40.64 52.02 62.92 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 57.9 64.7 69.4 73.8 -0.0 0.0 0.0 0.0 0.0 0.0 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 23:14:48 1993
81/330 26-NOV 0330:00 - 1130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0610 0650 0730 0810 0850 0930 0000 1050 DEGS
RE 0.0 0.0 0.0 4.6 4.7 4.5 4.1 3.3 2.2 0.0 2.2 HHMM
L 0.0 0.0 0.0 14.4 31.7 -0.0 -0.0 20.1 3.2 0.0 2.3 RE
MLT 0.0 0.0 0.0 7.9 8.6 10.5 15.8 18.0 18.7 0.0 6.9
MLAT 0.00 0.00 0.00 56.87 68.48 78.74 79.50 64.62 33.53 0.00 5.00 HRS
INVLAT 0.0 0.0 0.0 74.7 79.8 -0.0 -0.0 77.1 56.1 0.0 49.0 DEGS

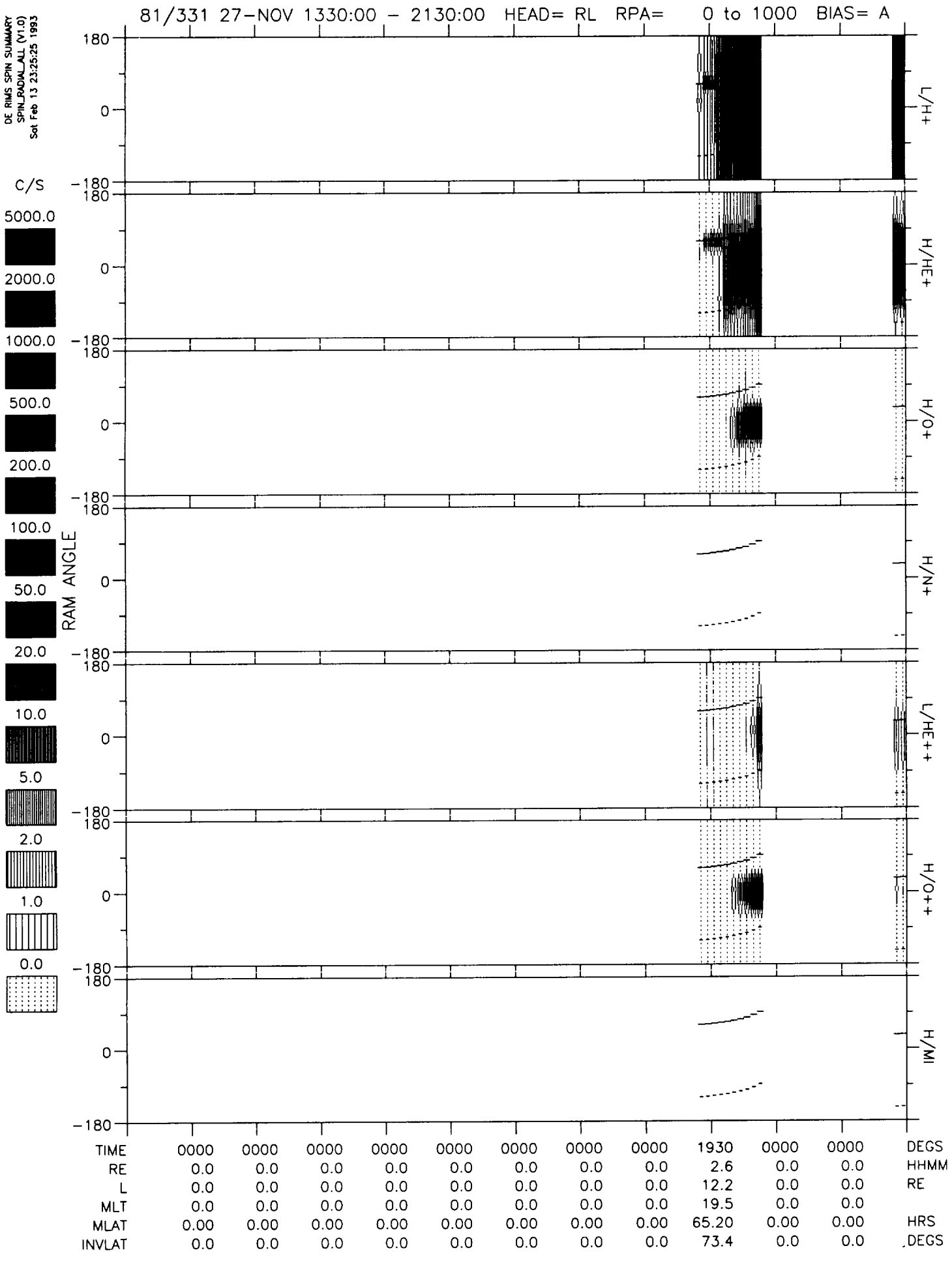

81/330 26-NOV 1015:00 - 1815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 23:17:15 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1055 1135 0000 0000 0000 1415 1455 1535 1615 0000 0000 DEGS
RE 2.4 3.5 0.0 0.0 0.0 4.5 4.1 3.4 2.4 0.0 0.0 HHMM
L 2.6 5.5 0.0 0.0 0.0 -0.0 -0.0 33.5 5.0 0.0 0.0 RE
MLT 6.9 6.8 0.0 0.0 0.0 3.6 23.8 20.8 19.4 0.0 0.0
MLAT 10.39 37.04 0.00 0.00 0.00 78.32 80.00 70.70 47.46 0.00 0.00 HRS
INVLAT 51.3 64.8 0.0 0.0 0.0 -0.0 -0.0 80.0 63.5 0.0 0.0 DEGS

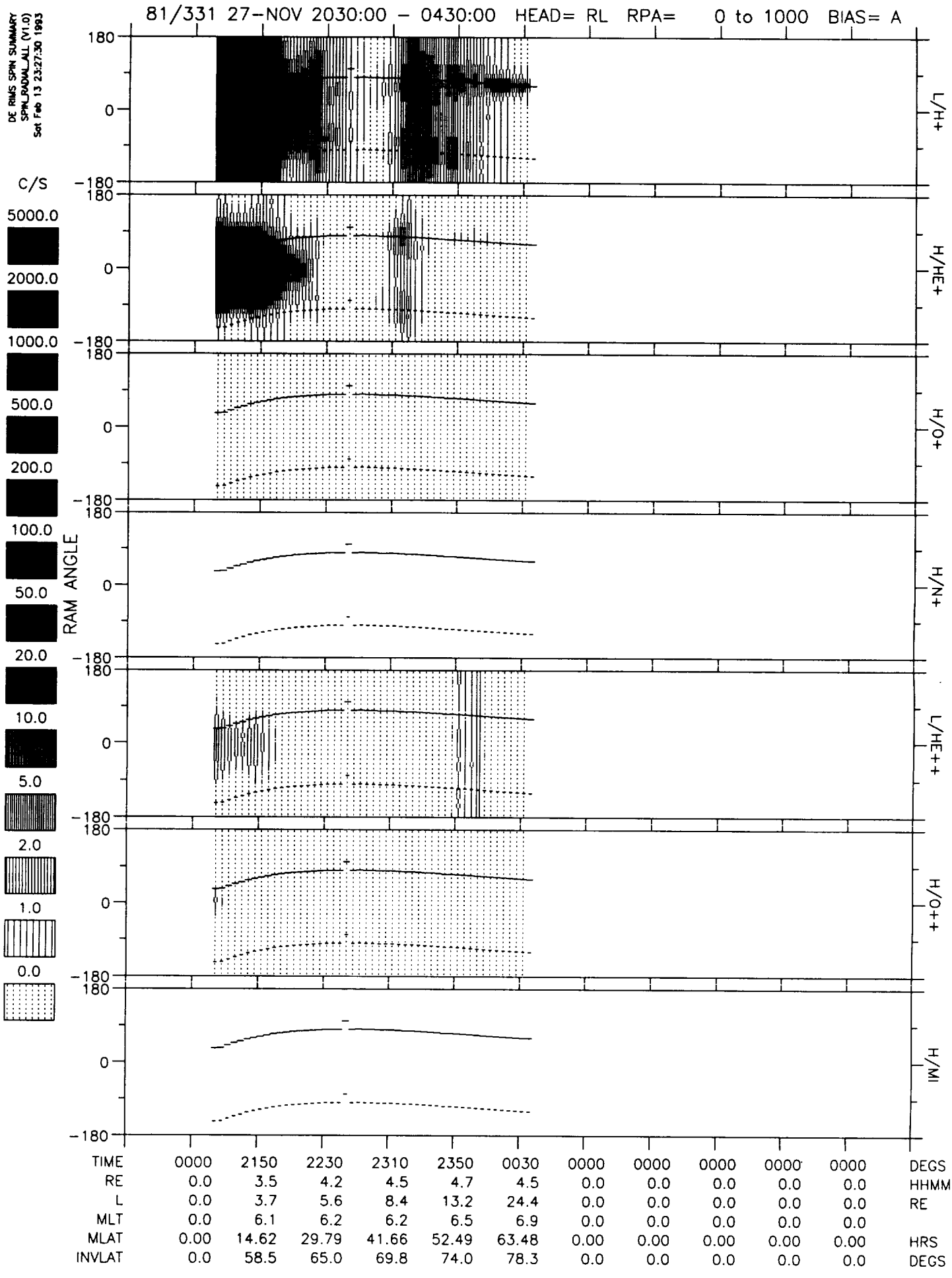

81/330 26-NOV 1700:00 - 0100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 23:19:40 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 2300 2340 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.6 1.2 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 16.6 1.3 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 18.2 18.3 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 67.70 -3.70 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 75.8 28.3 0.0 DEGS

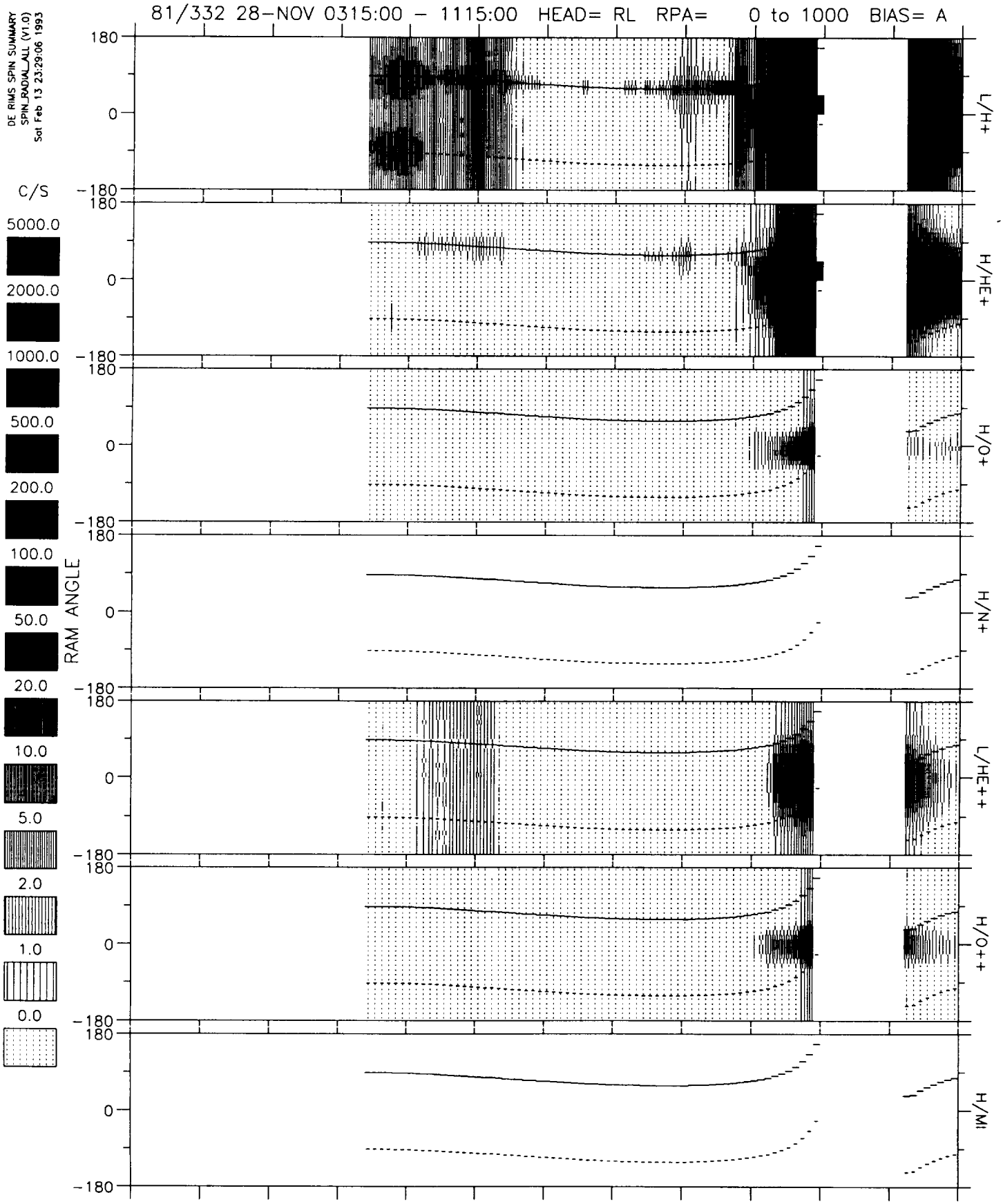

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 23:21:18 1993
81/331 27-NOV 0000:00 - 0800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0120 0200 0240 0320 0400 0440 0520 0600 0000 0000 DEGS
RE 0.0 3.5 4.2 4.6 4.7 4.5 4.1 3.4 2.3 0.0 0.0 HHMM
L 0.0 3.9 6.1 9.8 17.0 37.2 100.0 36.4 4.2 0.0 0.0 RE
MLT 0.0 6.5 6.8 7.1 7.7 8.7 11.6 16.2 18.0 0.0 0.0
MLAT 0.00 17.72 33.90 46.75 58.31 69.35 78.02 71.25 43.08 0.00 0.00 HRS
INVLAT 0.0 59.5 66.2 71.4 76.0 80.6 84.6 80.5 60.8 0.0 0.0 DEGS

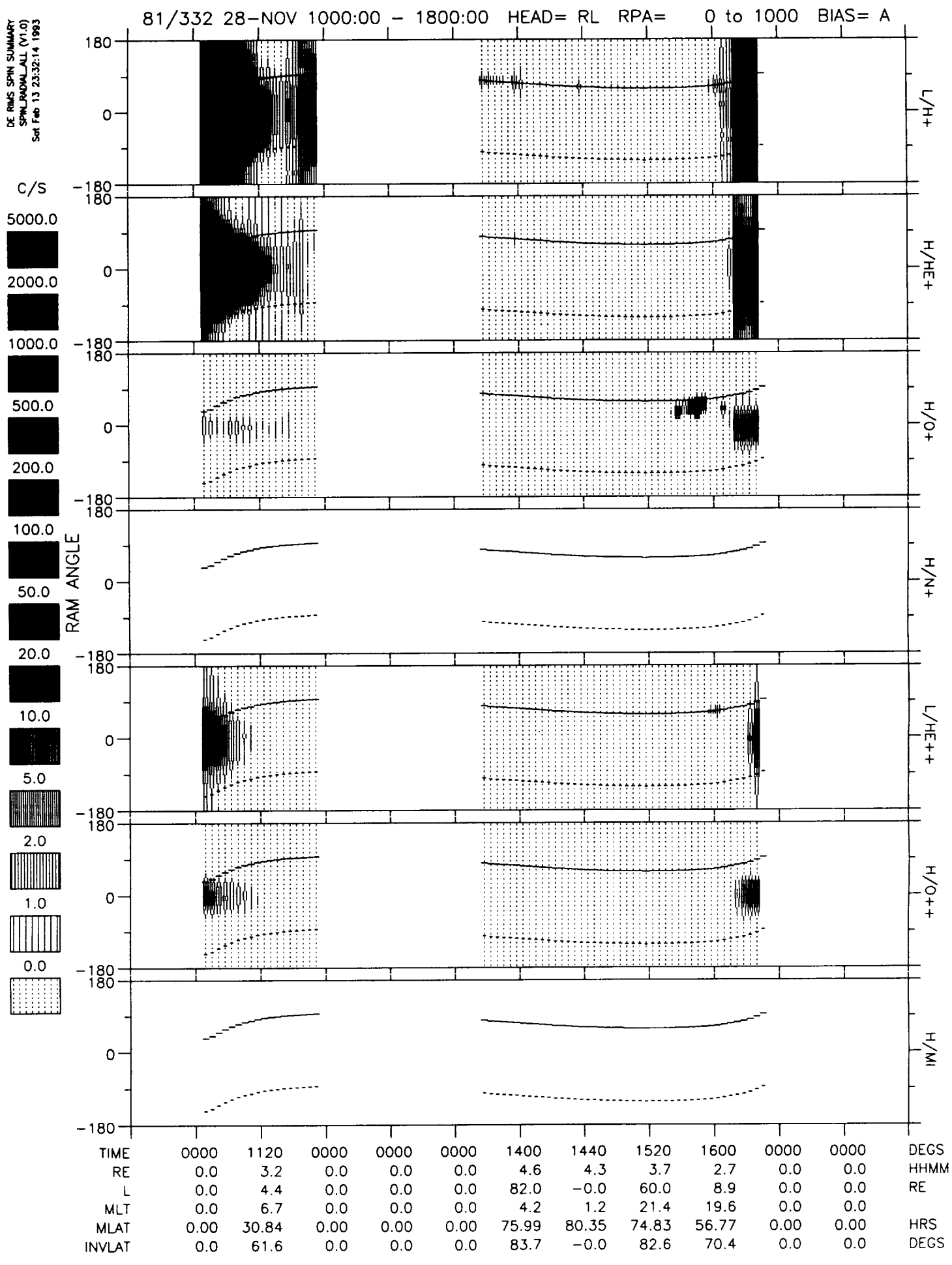

81/331 27-NOV 0715:00 - 1515:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 23:23:39 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0755 0835 0915 0955 1035 1115 1155 1235 1315 0000 0000 DEGS
RE 3.2 4.0 4.4 4.6 4.6 4.3 3.7 2.8 1.5 0.0 0.0 HHMM
L 3.9 7.8 16.2 40.1 100.0 100.0 46.6 7.5 1.5 0.0 0.0 RE
MLT 7.1 7.2 7.4 7.4 7.2 19.9 19.4 19.2 18.7 0.0 0.0
MLAT 26.80 45.78 59.58 71.19 82.18 86.24 72.41 51.26 1.75 0.00 0.00 HRS
INVLAT 59.5 69.0 75.6 80.9 85.9 88.8 81.6 68.7 34.1 0.0 0.0 DEGS

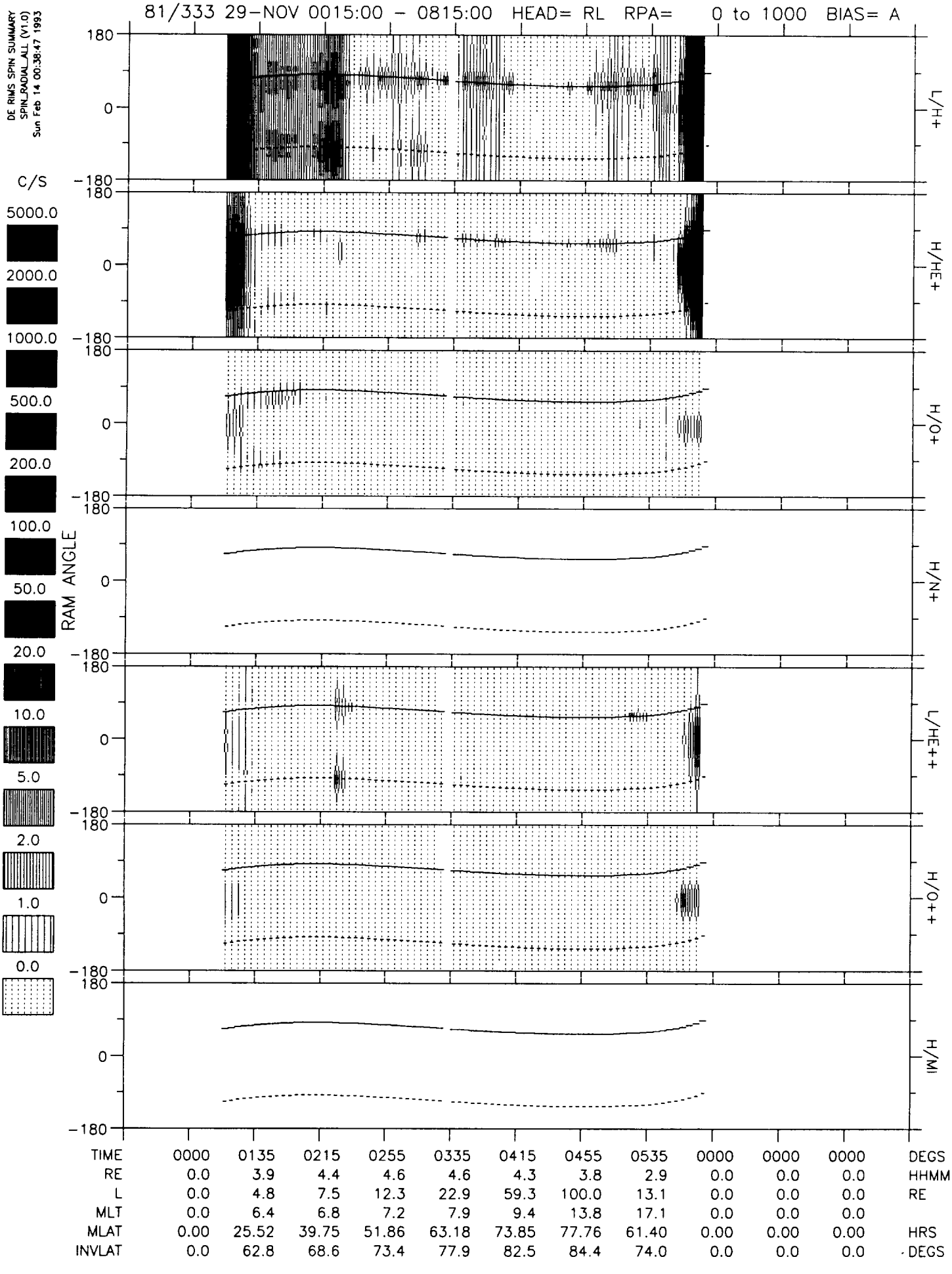
C-3

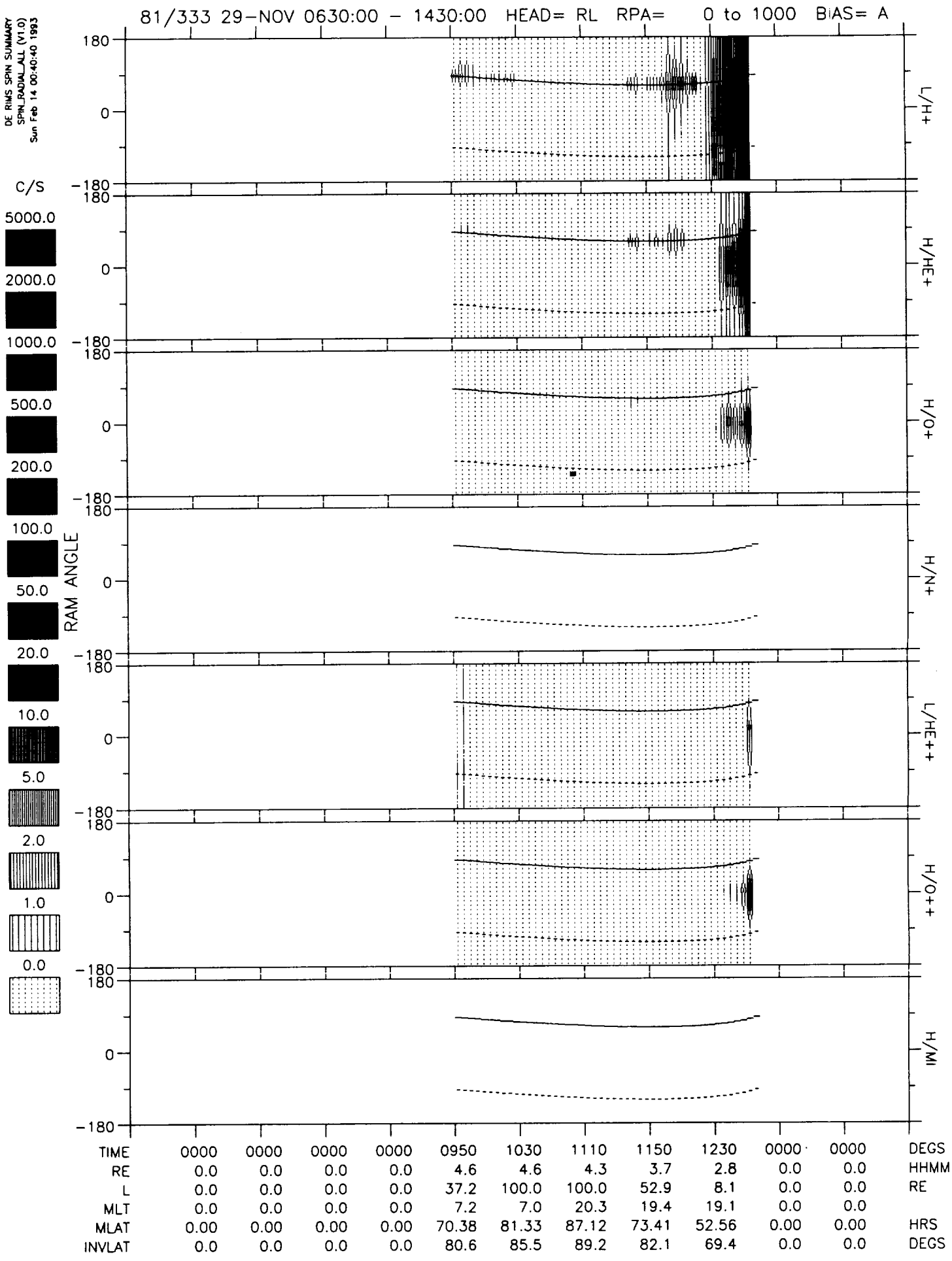

81/331 27-NOV 1330:00 - 2130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 23:25:25 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 1930 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.6 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 12.2 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 19.5 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 65.20 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 73.4 0.0 0.0 DEGS

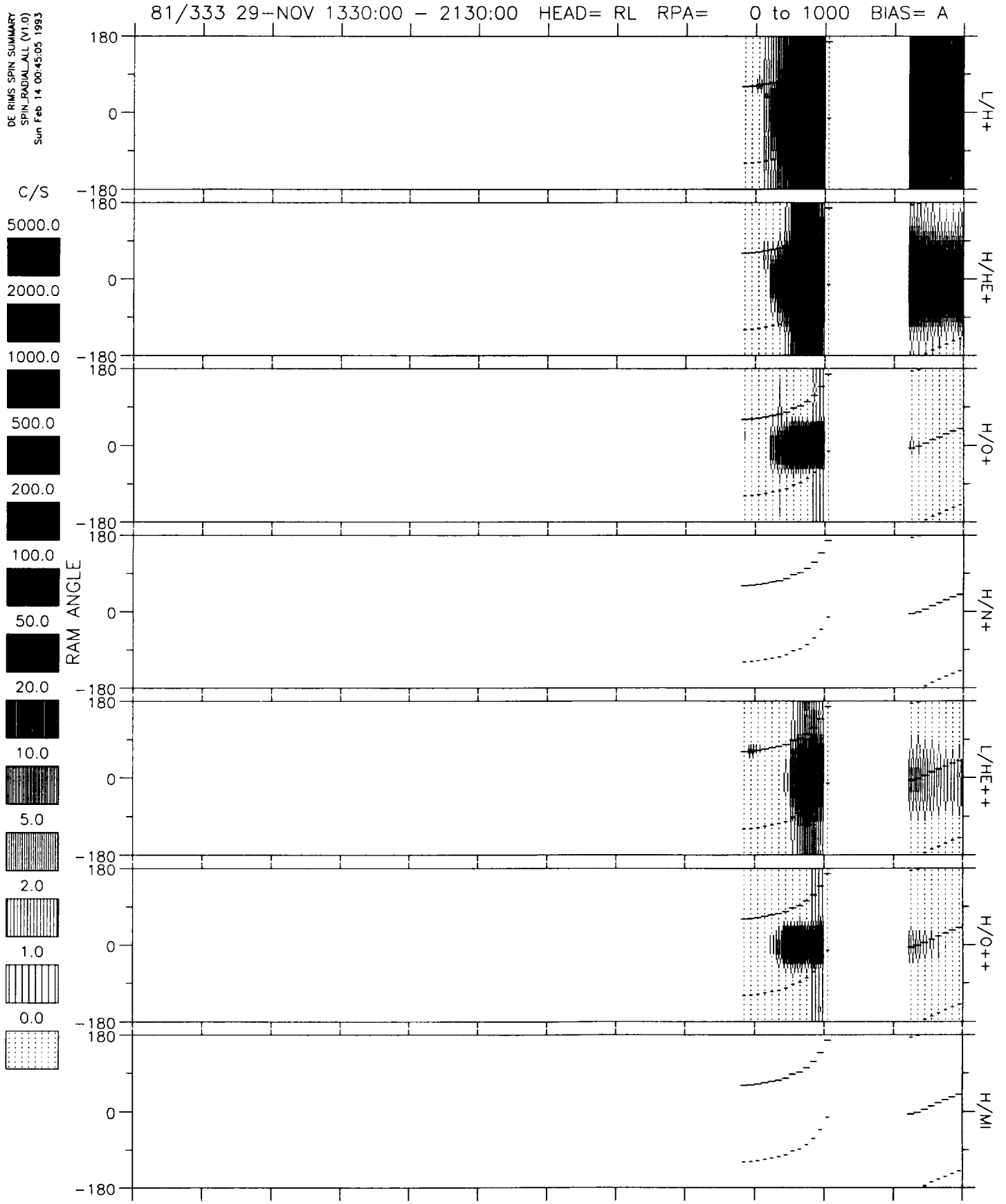

81/331 27-NOV 2030:00 – 0430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 23:27:30 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 2150 2230 2310 2350 0030 0000 0000 0000 0000 0000 DEGS
RE 0.0 3.5 4.2 4.5 4.7 4.5 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 3.7 5.6 8.4 13.2 24.4 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 6.1 6.2 6.2 6.5 6.9 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 14.62 29.79 41.66 52.49 63.48 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 58.5 65.0 69.8 74.0 78.3 0.0 0.0 0.0 0.0 0.0 DEGS

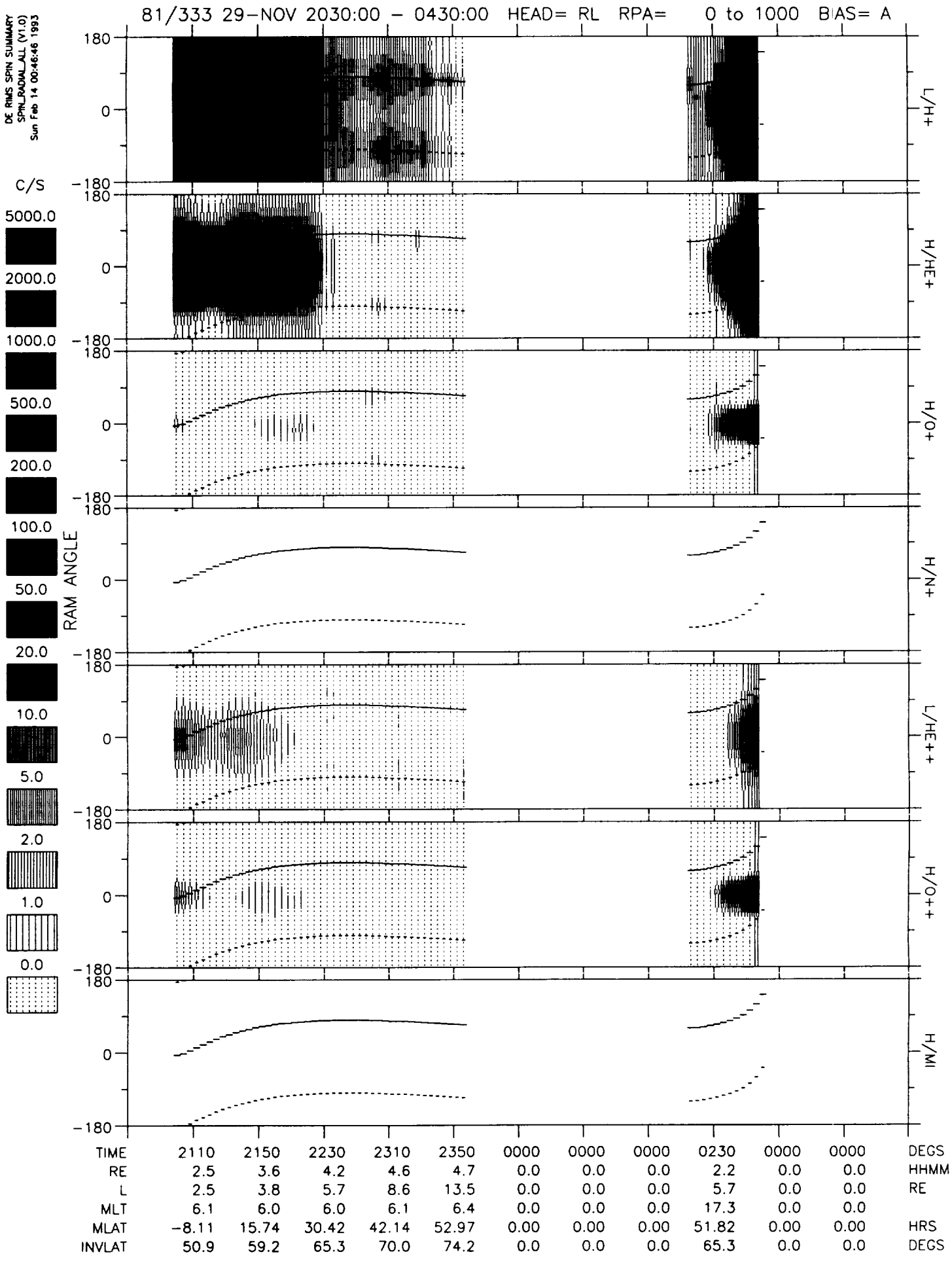

81/332 28-NOV 0315:00 - 1115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 23:29:06 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0555 0635 0715 0755 0835 0915 0000 0000 DEGS
RE 0.0 0.0 0.0 4.5 4.7 4.6 4.2 3.5 2.5 0.0 0.0 HHMM
L 0.0 0.0 0.0 11.8 24.0 68.6 -0.0 35.3 5.4 0.0 0.0 RE
MLT 0.0 0.0 0.0 7.6 8.2 9.4 14.0 17.5 18.4 0.0 0.0
MLAT 0.00 0.00 0.00 53.05 64.99 75.91 81.60 70.16 45.39 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 73.0 78.2 83.1 -0.0 80.3 64.5 0.0 0.0 DEGS

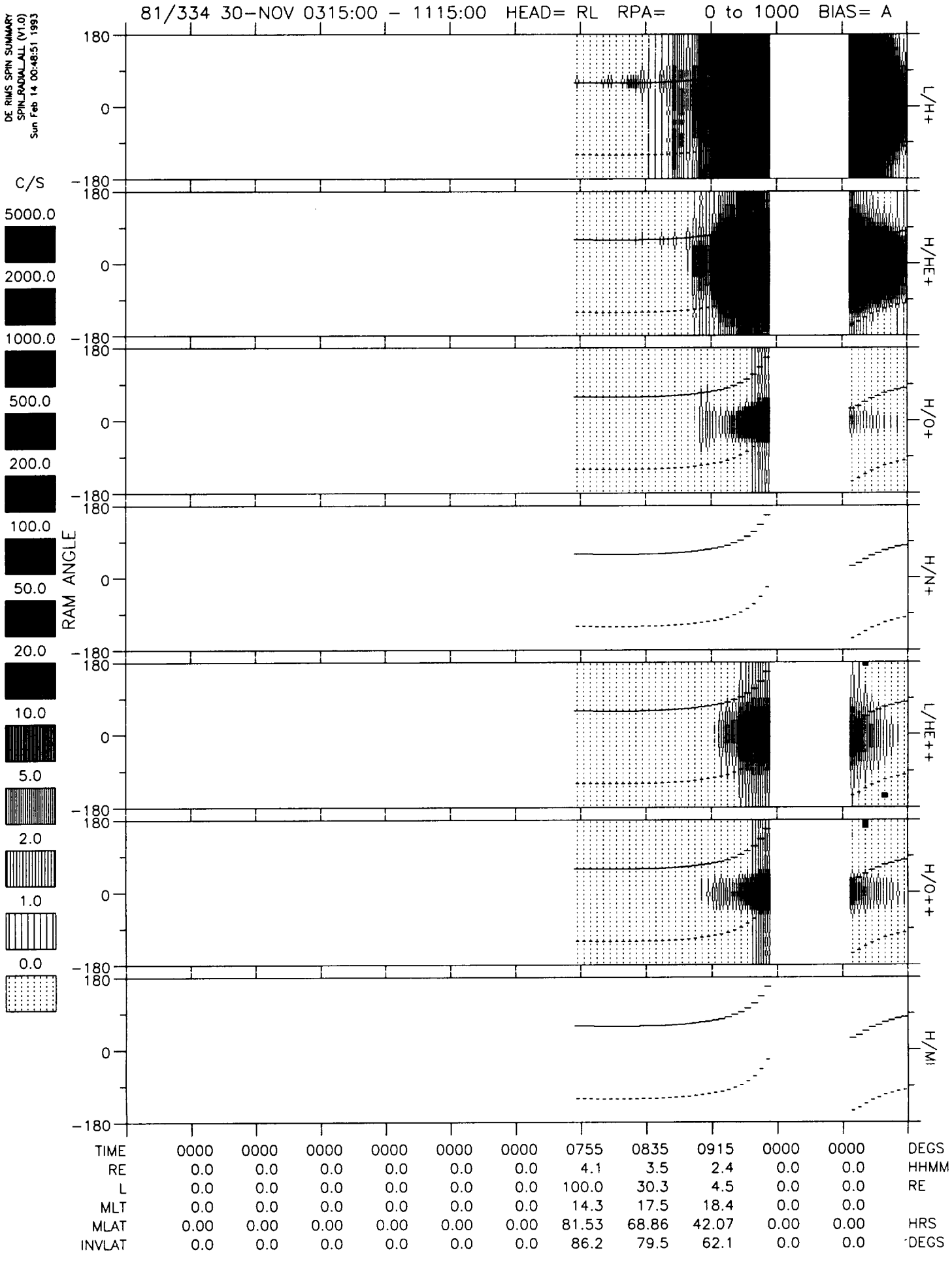

81/332 28-NOV 1000:00 - 1800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sat Feb 13 23:32:14 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1120 0000 0000 0000 1400 1440 1520 1600 0000 0000 DEGS
RE 0.0 3.2 0.0 0.0 0.0 4.6 4.3 3.7 2.7 0.0 0.0 HHMM
L 0.0 4.4 0.0 0.0 0.0 82.0 -0.0 60.0 8.9 0.0 0.0 RE
MLT 0.0 6.7 0.0 0.0 0.0 4.2 1.2 21.4 19.6 0.0 0.0
MLAT 0.00 30.84 0.00 0.00 0.00 75.99 80.35 74.83 56.77 0.00 0.00 HRS
INVLAT 0.0 61.6 0.0 0.0 0.0 83.7 -0.0 82.6 70.4 0.0 0.0 DEGS

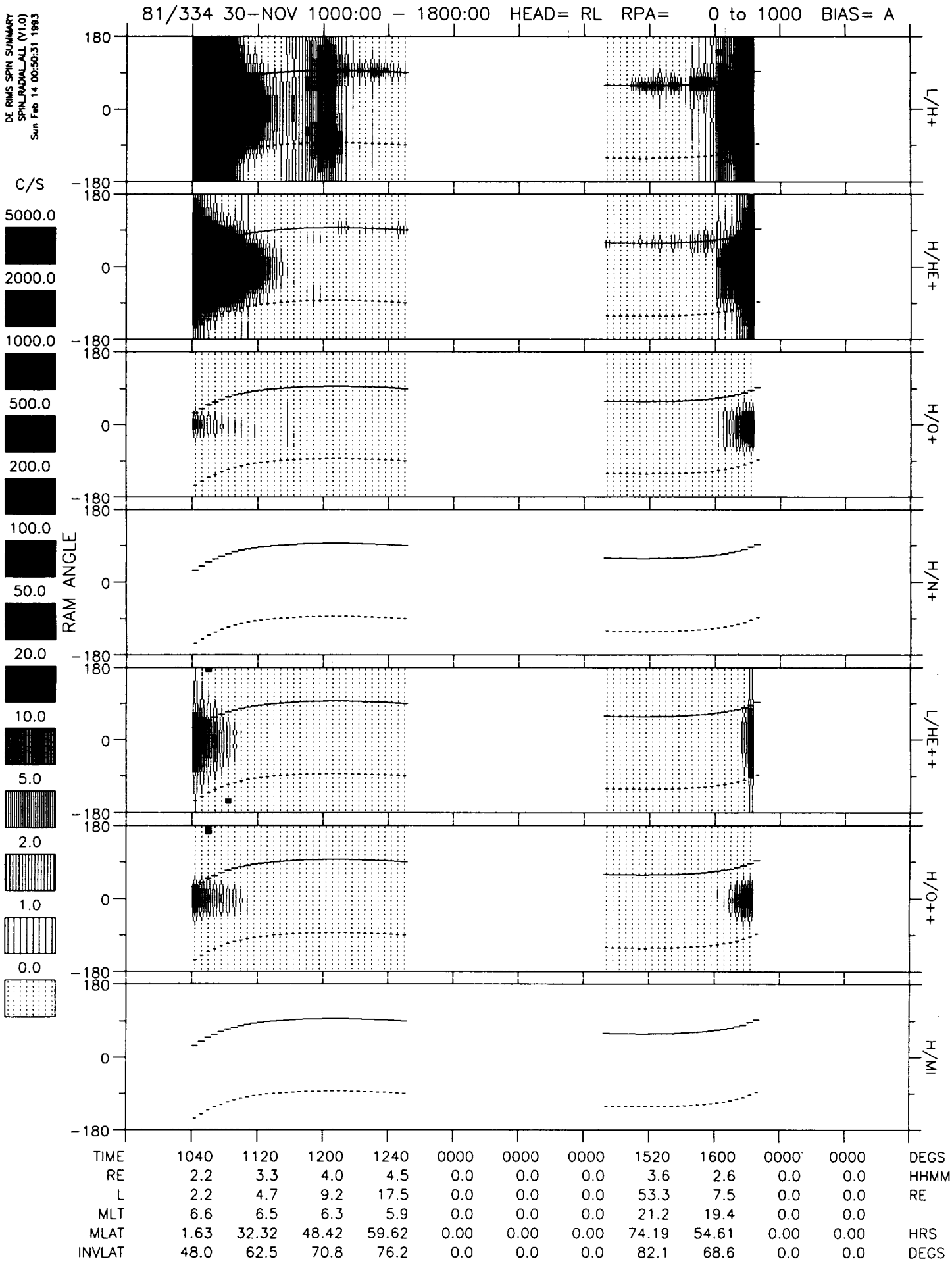

81/333 29-NOV 0015:00 - 0815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Feb 14 00:38:47 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0135 0215 0255 0335 0415 0455 0535 0000 0000 0000 DEGS
RE 0.0 3.9 4.4 4.6 4.6 4.3 3.8 2.9 0.0 0.0 0.0 HHMM
L 0.0 4.8 7.5 12.3 22.9 59.3 100.0 13.1 0.0 0.0 0.0 RE
MLT 0.0 6.4 6.8 7.2 7.9 9.4 13.8 17.1 0.0 0.0 0.0
MLAT 0.00 25.52 39.75 51.86 63.18 73.85 77.76 61.40 0.00 0.00 0.00 HRS
INVLAT 0.0 62.8 68.6 73.4 77.9 82.5 84.4 74.0 0.0 0.0 0.0 DEGS

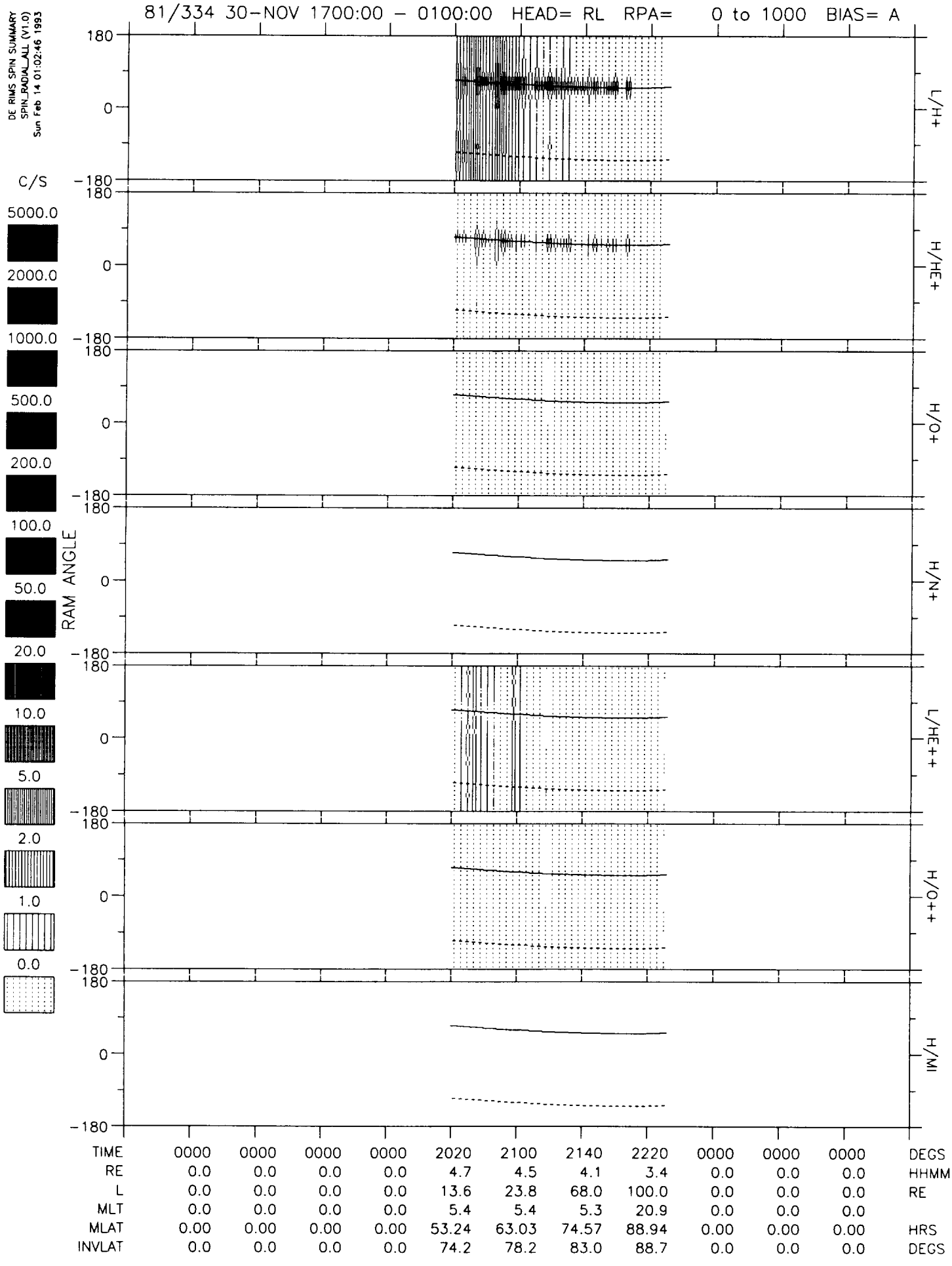

81/333 29-NOV 0630:00 - 1430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Feb 14 00:40:40 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0950 1030 1110 1150 1230 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.6 4.6 4.3 3.7 2.8 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 37.2 100.0 100.0 52.9 8.1 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 7.2 7.0 20.3 19.4 19.1 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 70.38 81.33 87.12 73.41 52.56 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 80.6 85.5 89.2 82.1 69.4 0.0 0.0 DEGS

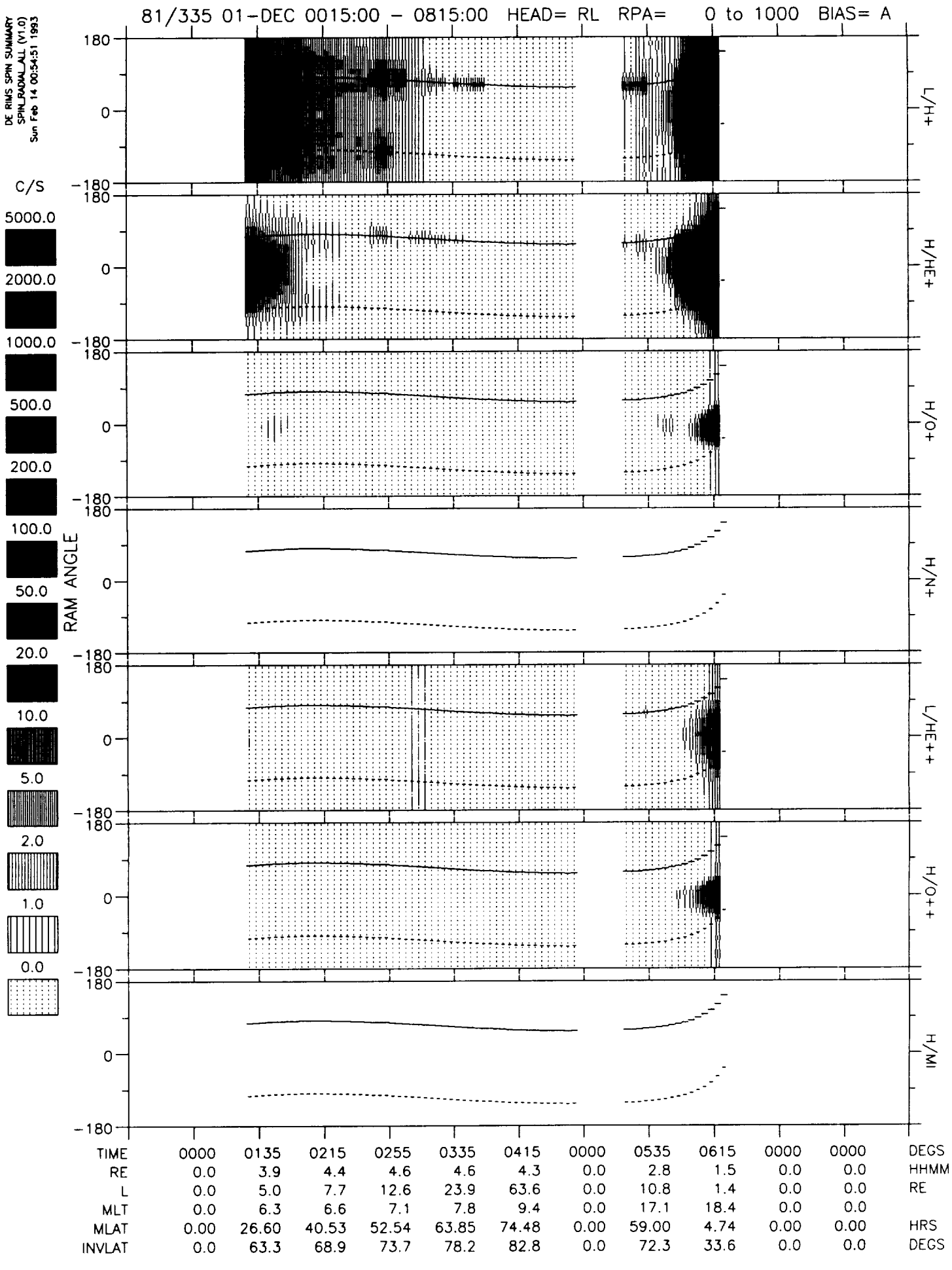

81/333 29-NOV 1330:00 - 2130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Feb 14 00:45:05 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 1930 2010 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.5 1.3 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 9.9 1.4 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 19.2 18.1 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 62.16 -4.22 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 71.5 31.1 0.0 DEGS

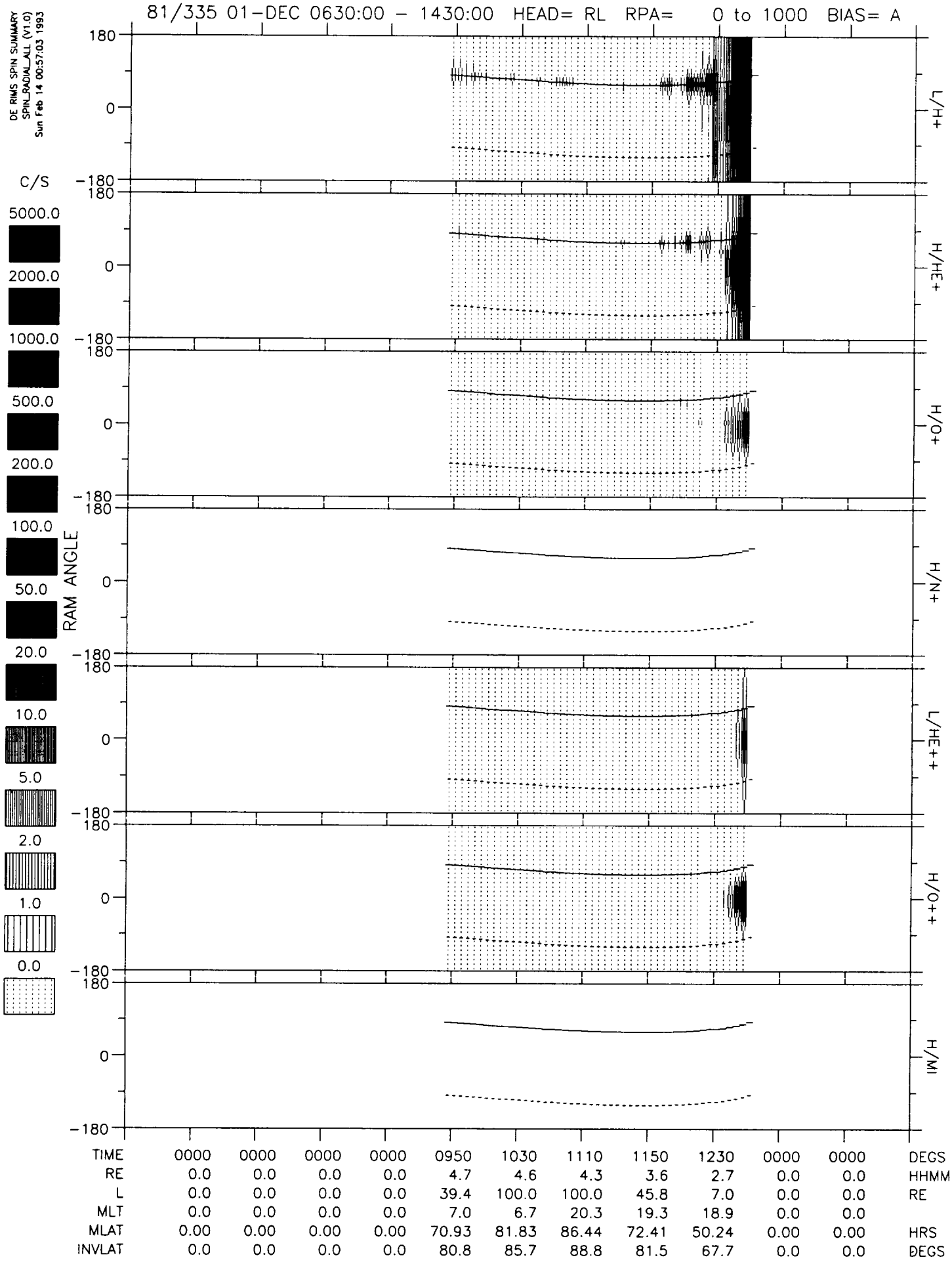

81/333 29-NOV 2030:00 - 0430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Feb 14 00:46:46 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2110 2150 2230 2310 2350 0000 0000 0000 0230 0000 0000 DEGS
RE 2.5 3.6 4.2 4.6 4.7 0.0 0.0 0.0 2.2 0.0 0.0 HHMM
L 2.5 3.8 5.7 8.6 13.5 0.0 0.0 0.0 5.7 0.0 0.0 RE
MLT 6.1 6.0 6.0 6.1 6.4 0.0 0.0 0.0 17.3 0.0 0.0
MLAT -8.11 15.74 30.42 42.14 52.97 0.00 0.00 0.00 51.82 0.00 0.00 HRS
INVLAT 50.9 59.2 65.3 70.0 74.2 0.0 0.0 0.0 65.3 0.0 0.0 DEGS

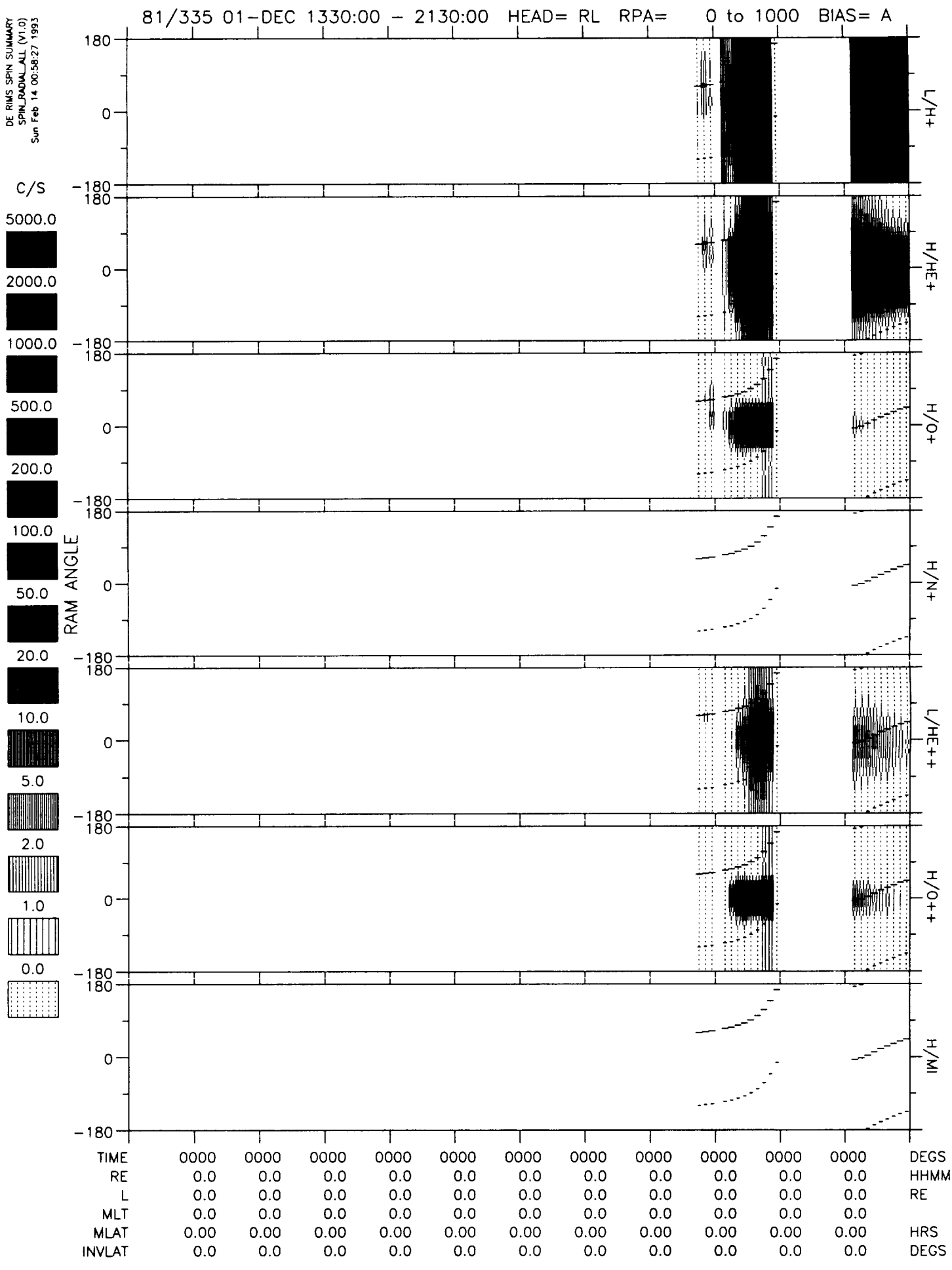

81/334 30-NOV 0315:00 - 1115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Feb 14 00:48:51 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0755 0835 0915 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 4.1 3.5 2.4 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 100.0 30.3 4.5 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 14.3 17.5 18.4 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 81.53 68.86 42.07 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 86.2 79.5 62.1 0.0 0.0 DEGS

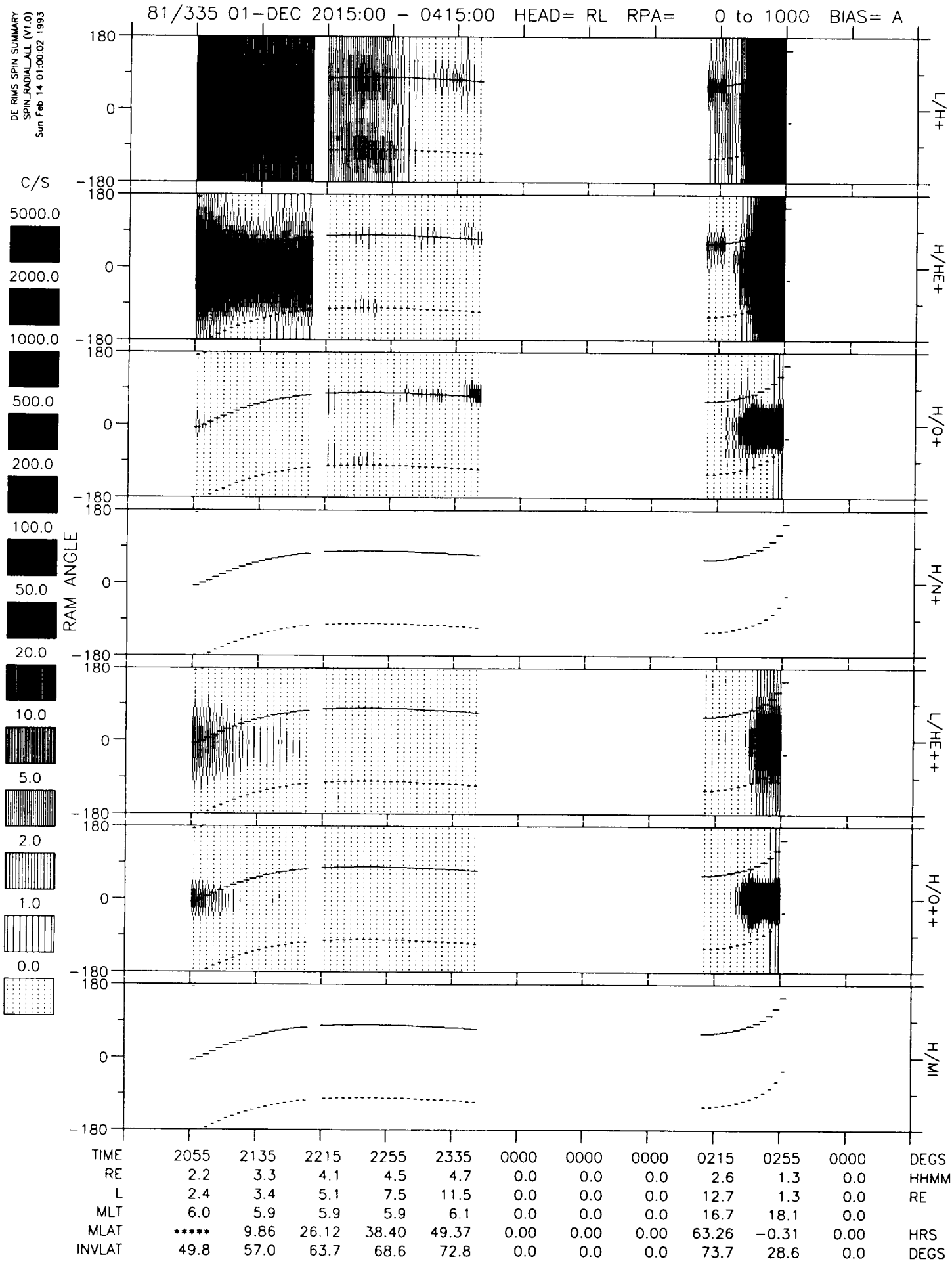

81/334 30-NOV 1000:00 - 1800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Feb 14 00:50:31 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1040 1120 1200 1240 0000 0000 0000 1520 1600 0000 0000 DEGS
RE 2.2 3.3 4.0 4.5 0.0 0.0 0.0 3.6 2.6 0.0 0.0 HHMM
L 2.2 4.7 9.2 17.5 0.0 0.0 0.0 53.3 7.5 0.0 0.0 RE
MLT 6.6 6.5 6.3 5.9 0.0 0.0 0.0 21.2 19.4 0.0 0.0
MLAT 1.63 32.32 48.42 59.62 0.00 0.00 0.00 74.19 54.61 0.00 0.00 HRS
INVLAT 48.0 62.5 70.8 76.2 0.0 0.0 0.0 82.1 68.6 0.0 0.0 DEGS

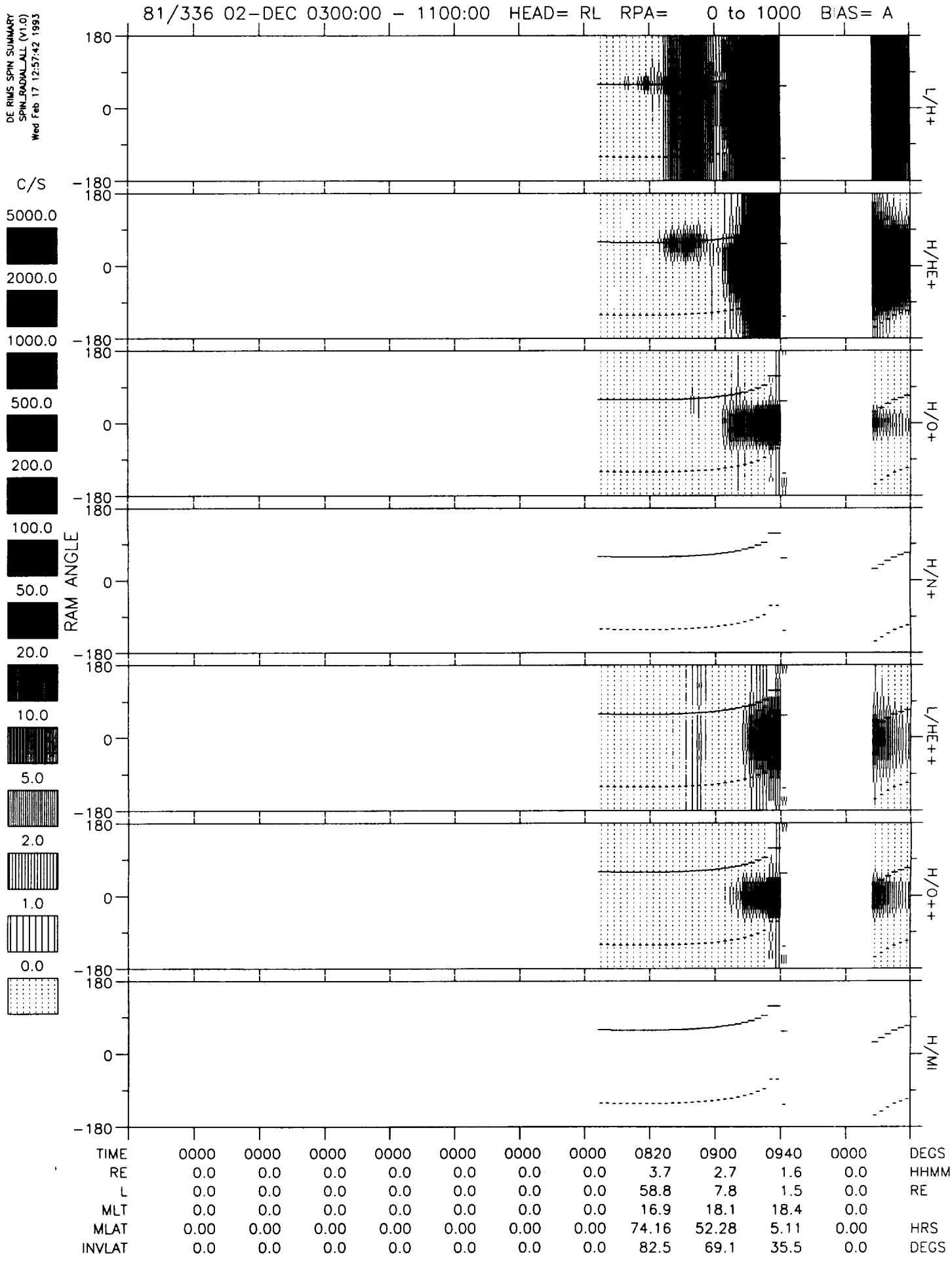

81/334 30-NOV 1700:00 - 0100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Feb 14 01:02:46 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 2020 2100 2140 2220 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.7 4.5 4.1 3.4 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 13.6 23.8 68.0 100.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 5.4 5.4 5.3 20.9 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 53.24 63.03 74.57 88.94 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 74.2 78.2 83.0 88.7 0.0 0.0 0.0 DEGS

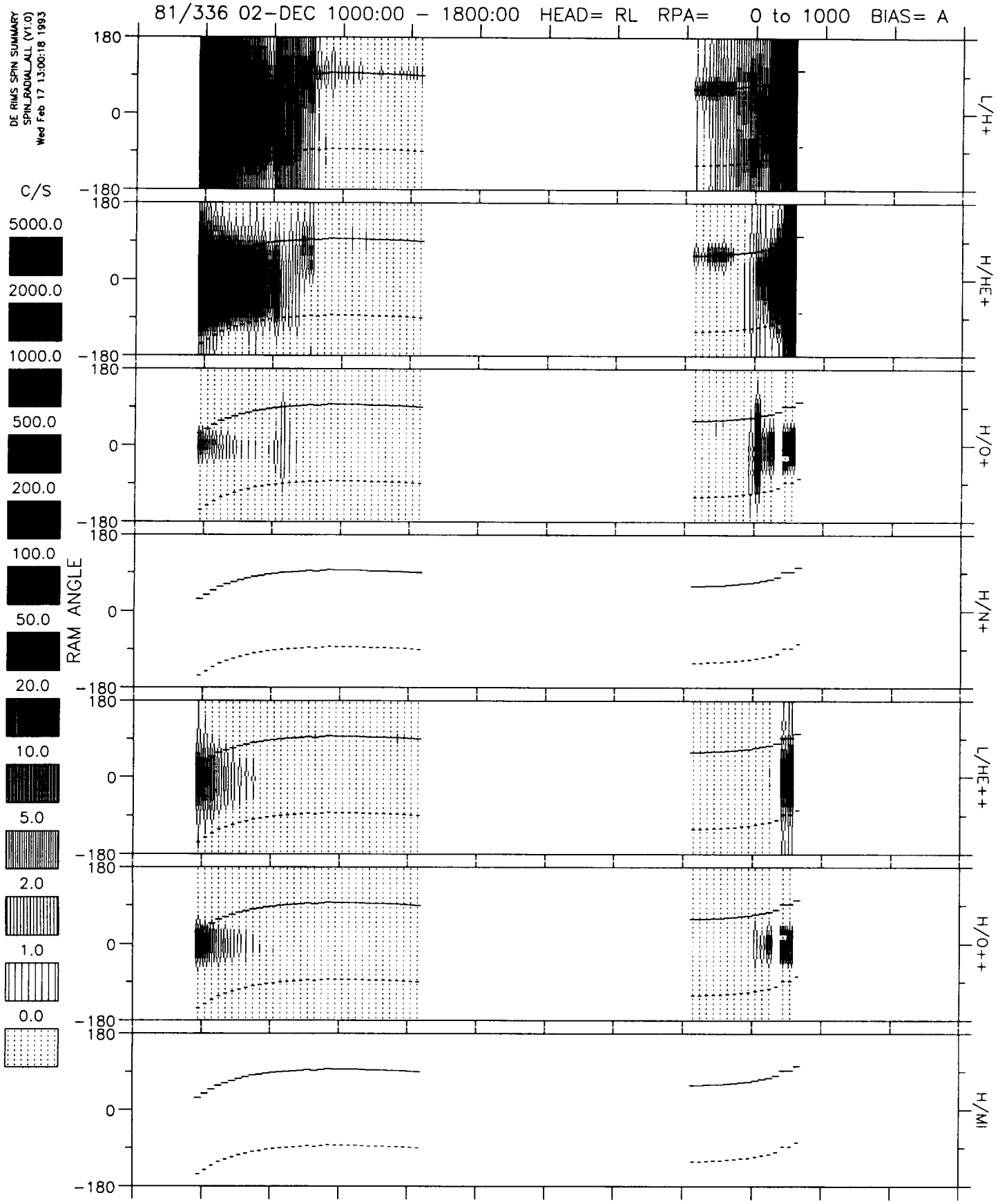

81/335 01-DEC 0015:00 - 0815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Feb 14 00:54:51 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0135 0215 0255 0335 0415 0000 0535 0615 0000 0000 DEGS
RE 0.0 3.9 4.4 4.6 4.6 4.3 0.0 2.8 1.5 0.0 0.0 HHMM
L 0.0 5.0 7.7 12.6 23.9 63.6 0.0 10.8 1.4 0.0 0.0 RE
MLT 0.0 6.3 6.6 7.1 7.8 9.4 0.0 17.1 18.4 0.0 0.0
MLAT 0.00 26.60 40.53 52.54 63.85 74.48 0.00 59.00 4.74 0.00 0.00 HRS
INVLAT 0.0 63.3 68.9 73.7 78.2 82.8 0.0 72.3 33.6 0.0 0.0 DEGS

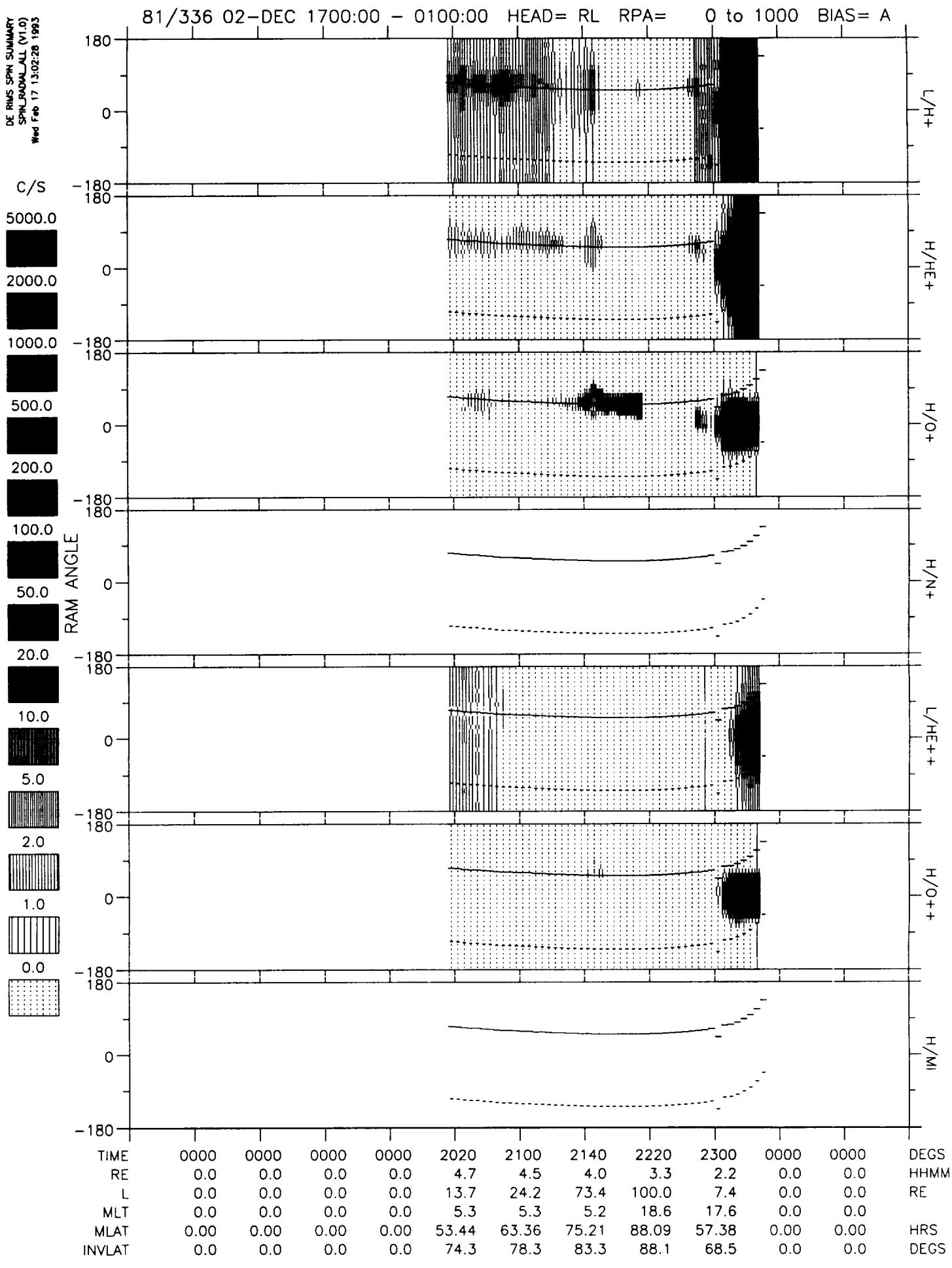

81/335 01-DEC 0630:00 - 1430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Feb 14 00:57:03 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0950 1030 1110 1150 1230 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.7 4.6 4.3 3.6 2.7 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 39.4 100.0 100.0 45.8 7.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 7.0 6.7 20.3 19.3 18.9 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 70.93 81.83 86.44 72.41 50.24 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 80.8 85.7 88.8 81.5 67.7 0.0 0.0 DEGS

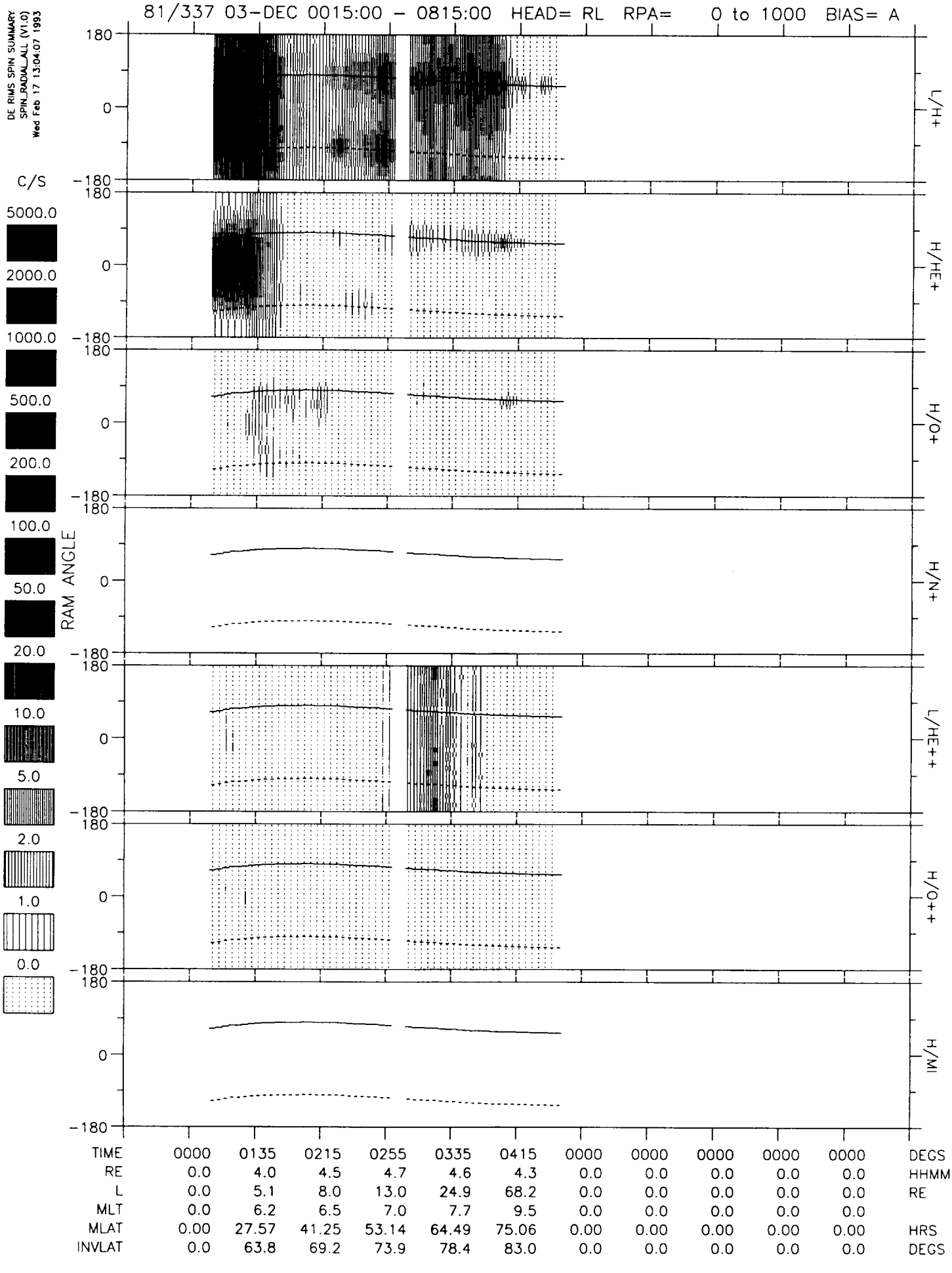

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Feb 14 00:58:27 1993
81/335 01-DEC 1330:00 - 2130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

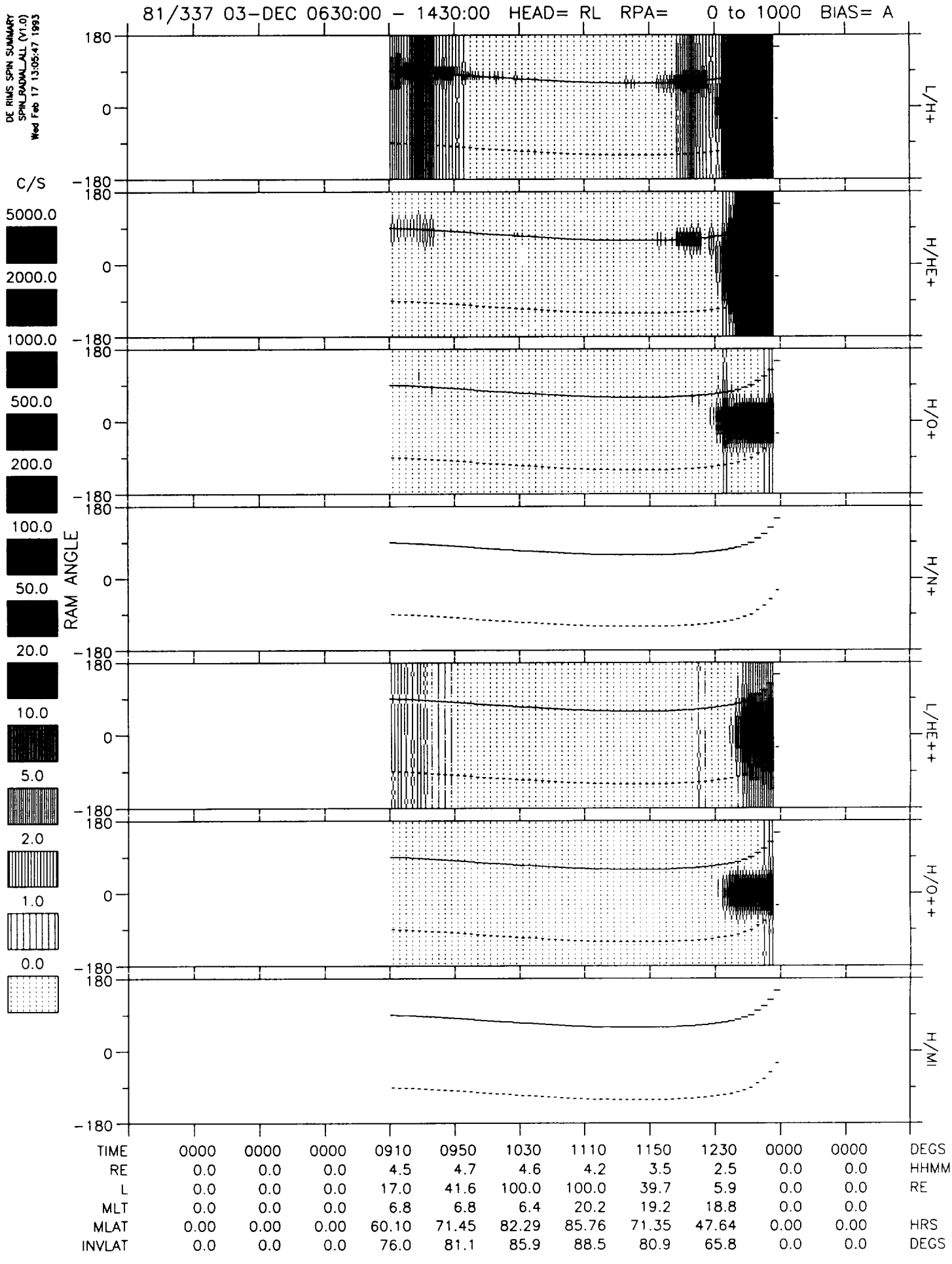

81/335 01-DEC 2015:00 - 0415:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Sun Feb 14 01:00:02 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 2055 2135 2215 2255 2335 0000 0000 0000 0215 0255 0000 DEGS
RE 2.2 3.3 4.1 4.5 4.7 0.0 0.0 0.0 2.6 1.3 0.0 HHMM
L 2.4 3.4 5.1 7.5 11.5 0.0 0.0 0.0 12.7 1.3 0.0 RE
MLT 6.0 5.9 5.9 5.9 6.1 0.0 0.0 0.0 16.7 18.1 0.0
MLAT ***** 9.86 26.12 38.40 49.37 0.00 0.00 0.00 63.26 -0.31 0.00 HRS
INVLAT 49.8 57.0 63.7 68.6 72.8 0.0 0.0 0.0 73.7 28.6 0.0 DEGS

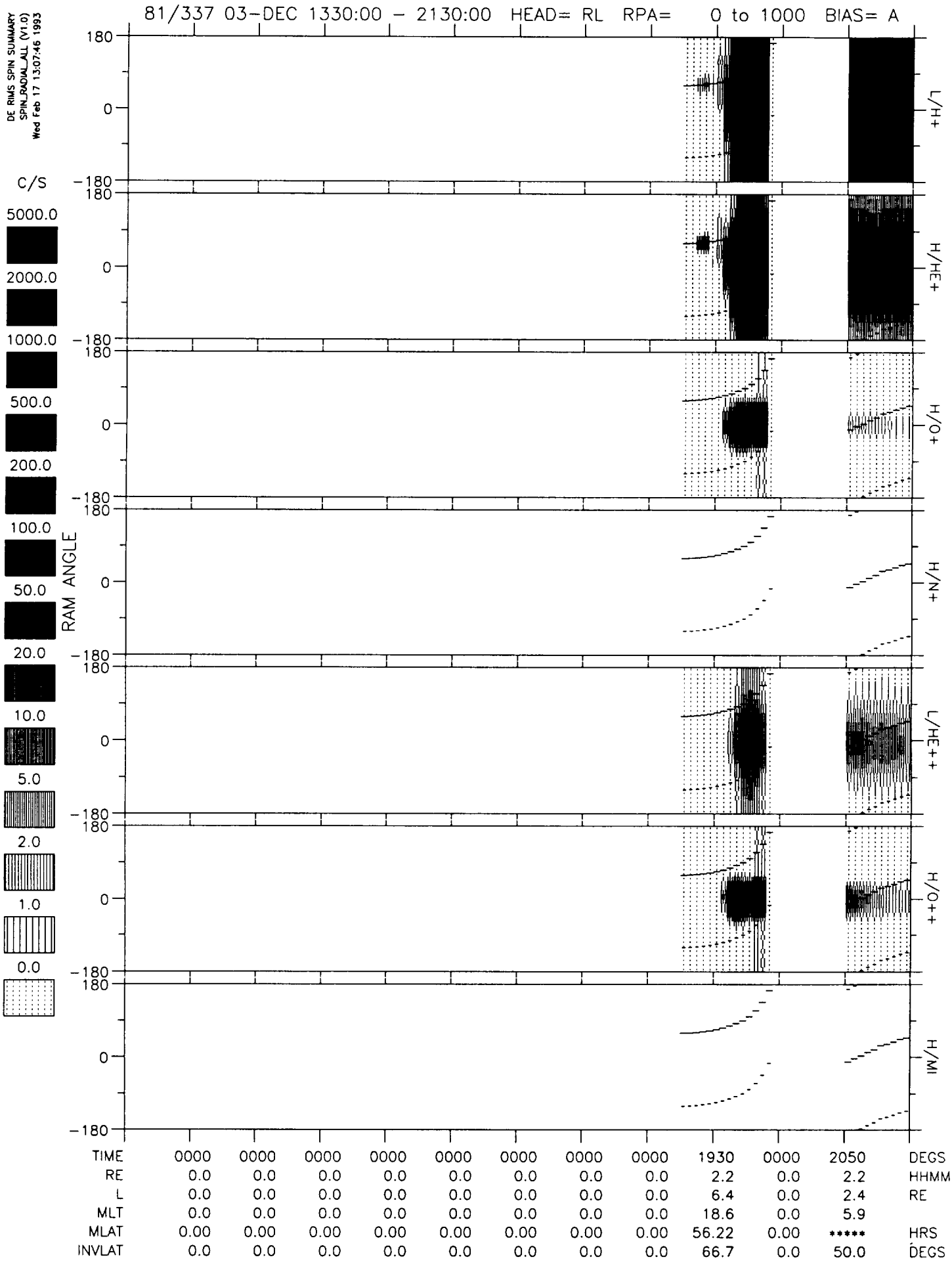

81/336 02-DEC 0300:00 - 1100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 12:57:42 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0820 0900 0940 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.7 2.7 1.6 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 58.8 7.8 1.5 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 16.9 18.1 18.4 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 74.16 52.28 5.11 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 82.5 69.1 35.5 0.0 DEGS

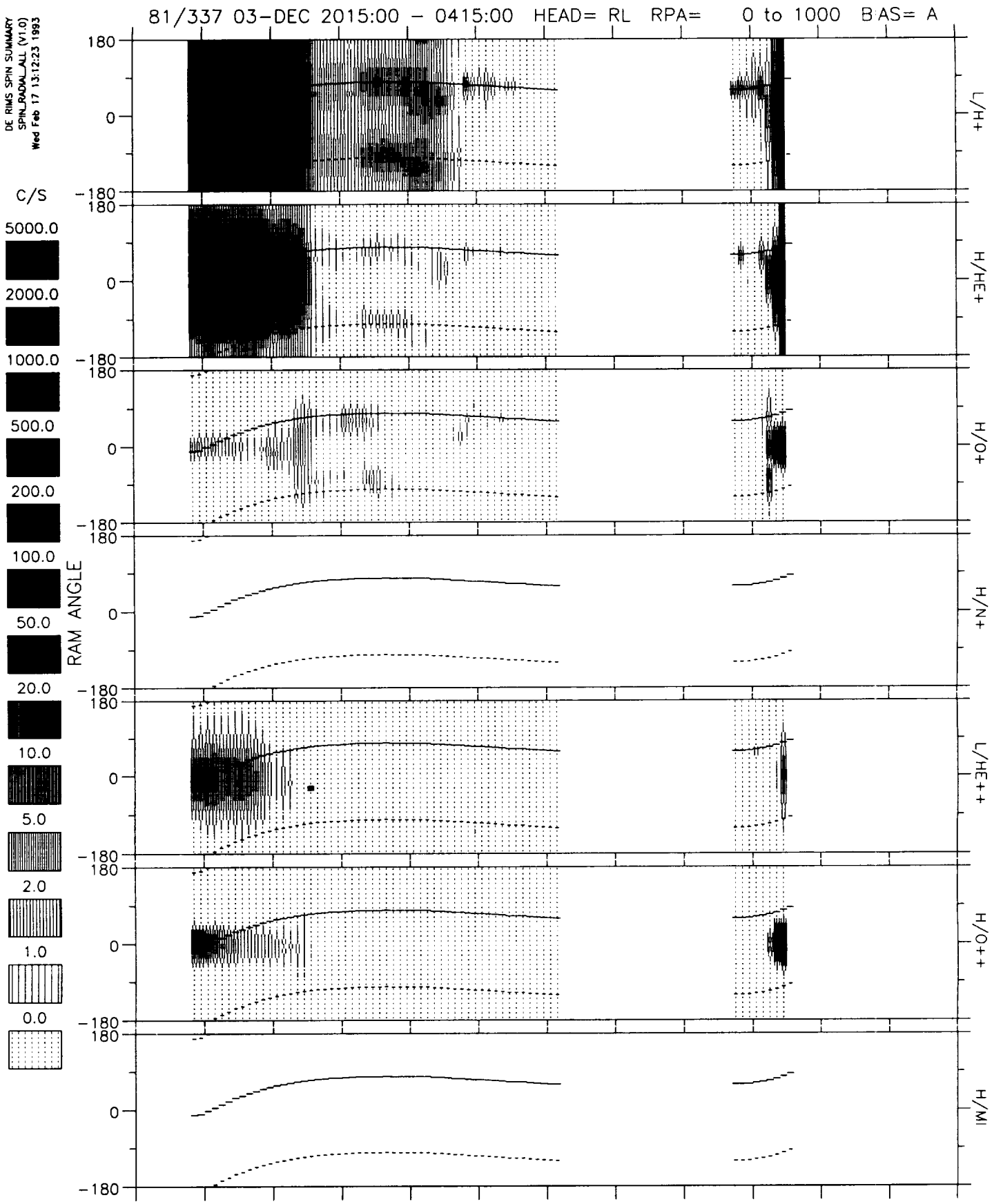

81/336 02-DEC 1000:00 – 1800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:00:18 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1040 1120 1200 1240 0000 0000 0000 0000 1600 0000 0000 DEGS
RE 2.3 3.4 4.1 4.5 0.0 0.0 0.0 0.0 2.5 0.0 0.0 HHMM
L 2.4 4.9 9.5 17.8 0.0 0.0 0.0 0.0 6.4 0.0 0.0 RE
MLT 6.5 6.3 6.1 5.7 0.0 0.0 0.0 0.0 19.2 0.0 0.0
MLAT 5.47 33.59 48.95 59.81 0.00 0.00 0.00 0.00 52.32 0.00 0.00 HRS
INVLAT 49.6 63.3 71.1 76.3 0.0 0.0 0.0 0.0 66.7 0.0 0.0 DEGS

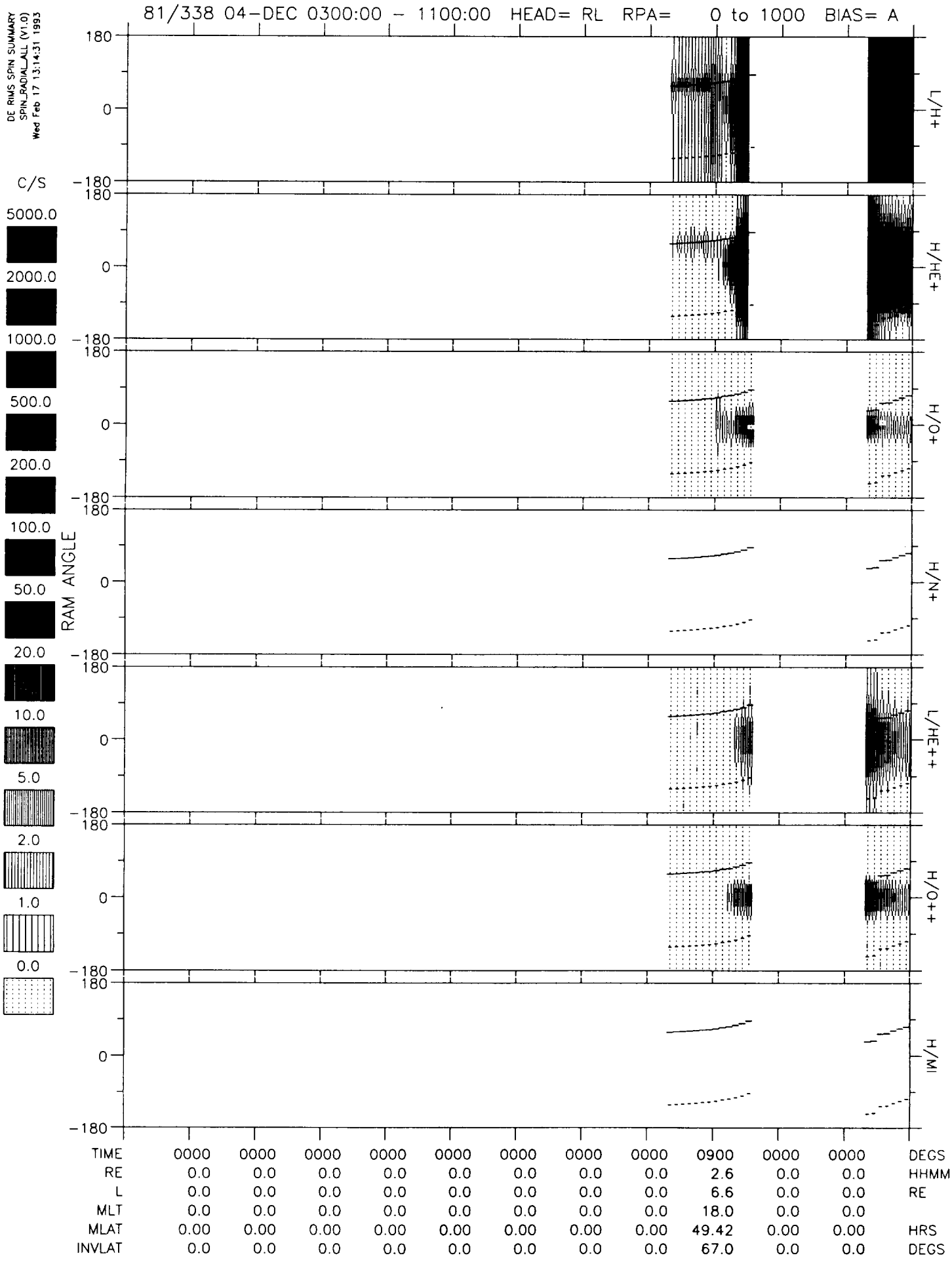

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:02:28 1993
81/336 02-DEC 1700:00 - 0100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 2020 2100 2140 2220 2300 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.7 4.5 4.0 3.3 2.2 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 13.7 24.2 73.4 100.0 7.4 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 5.3 5.3 5.2 18.6 17.6 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 53.44 63.36 75.21 88.09 57.38 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 74.3 78.3 83.3 88.1 68.5 0.0 0.0 DEGS

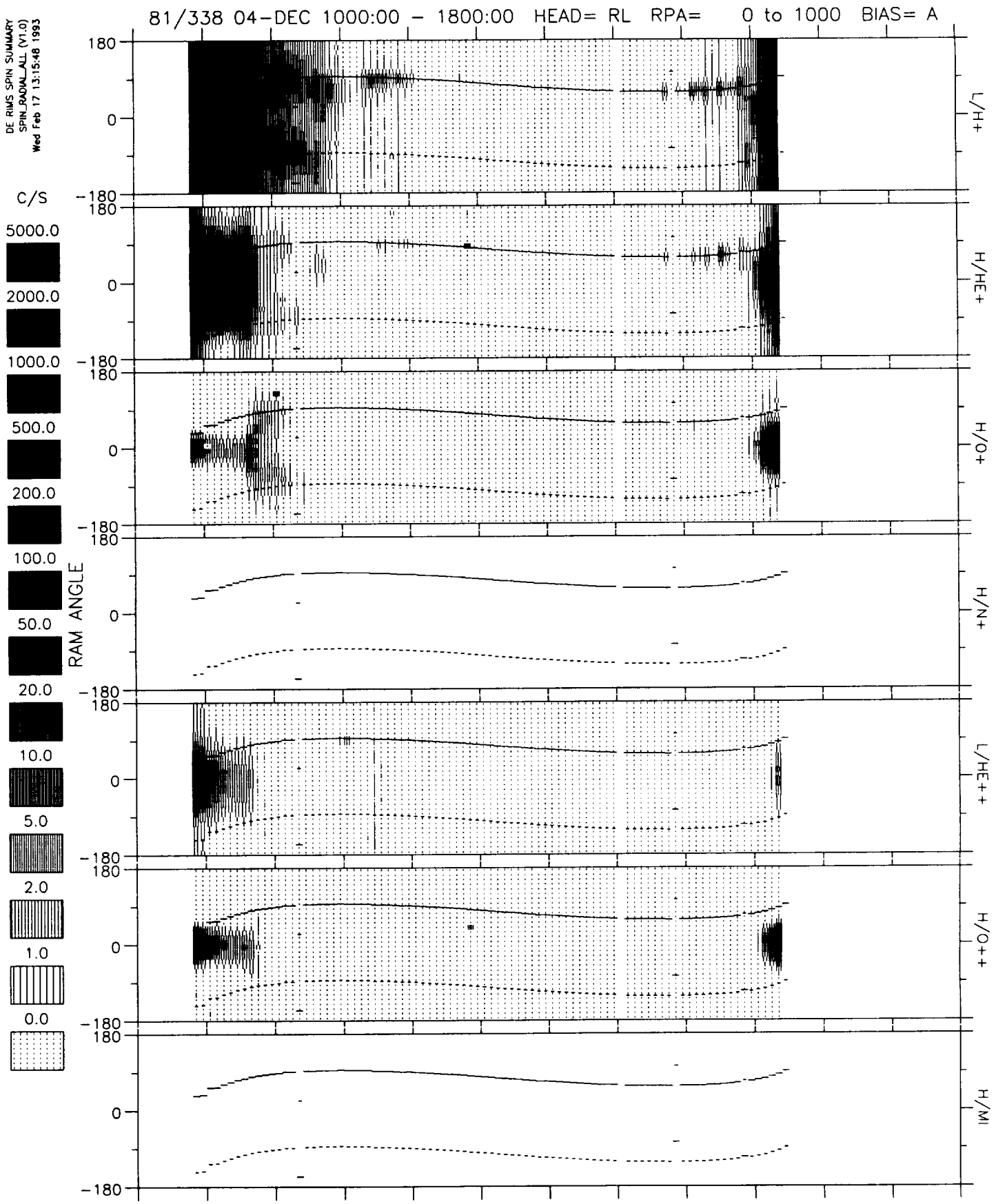

81/337 03-DEC 0015:00 - 0815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:04:07 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0135 0215 0255 0335 0415 0000 0000 0000 0000 0000 DEGS
RE 0.0 4.0 4.5 4.7 4.6 4.3 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 5.1 8.0 13.0 24.9 68.2 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 6.2 6.5 7.0 7.7 9.5 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 27.57 41.25 53.14 64.49 75.06 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 63.8 69.2 73.9 78.4 83.0 0.0 0.0 0.0 0.0 0.0 DEGS

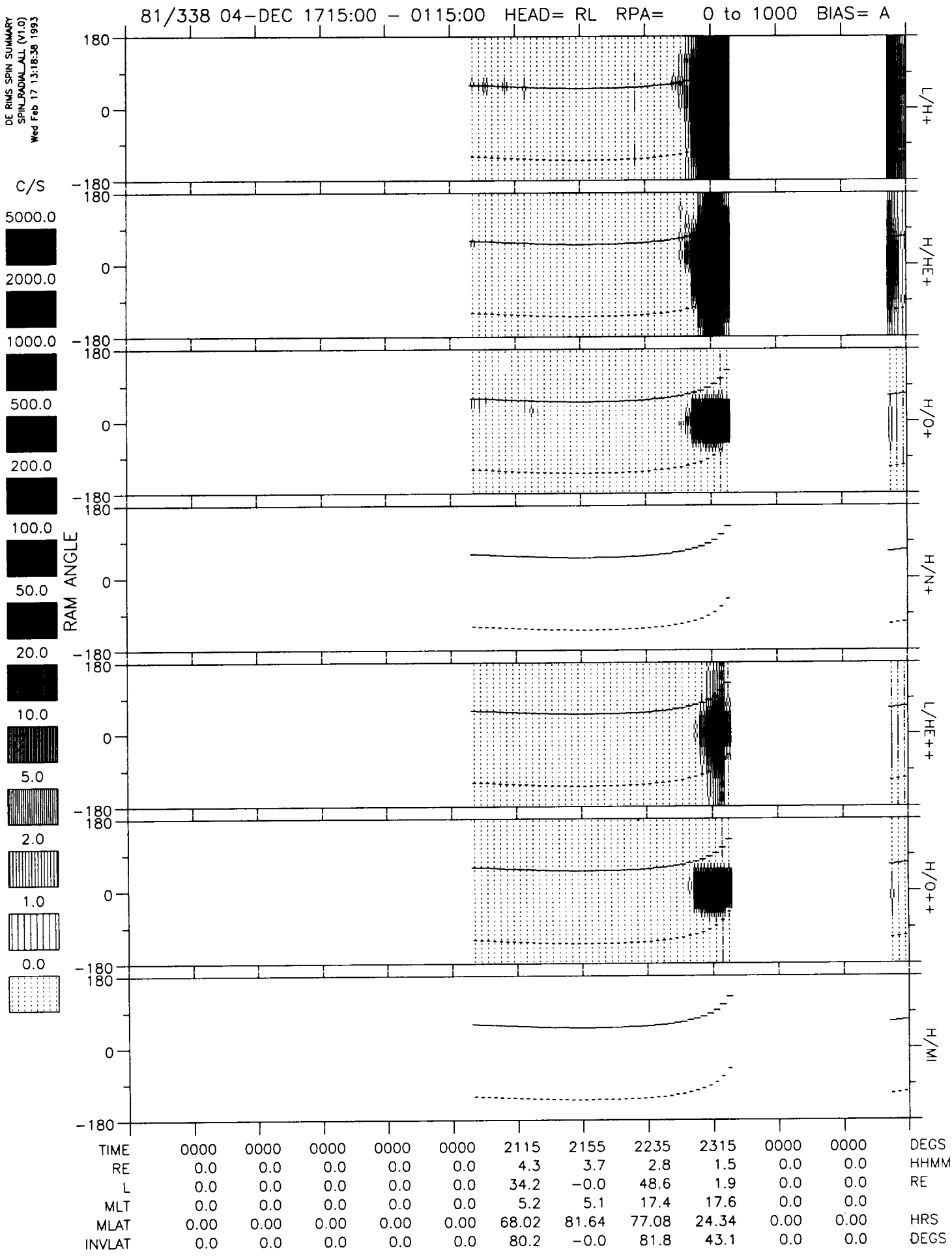

81/337 03-DEC 0630:00 - 1430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:05:47 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0000 0000 0000 0910 0950 1030 1110 1150 1230 0000 0000 DEGS
RE 0.0 0.0 0.0 4.5 4.7 4.6 4.2 3.5 2.5 0.0 0.0 HHMM
L 0.0 0.0 0.0 17.0 41.6 100.0 100.0 39.7 5.9 0.0 0.0 RE
MLT 0.0 0.0 0.0 6.8 6.8 6.4 20.2 19.2 18.8 0.0 0.0
MLAT 0.00 0.00 0.00 60.10 71.45 82.29 85.76 71.35 47.64 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 76.0 81.1 85.9 88.5 80.9 65.8 0.0 0.0 DEGS

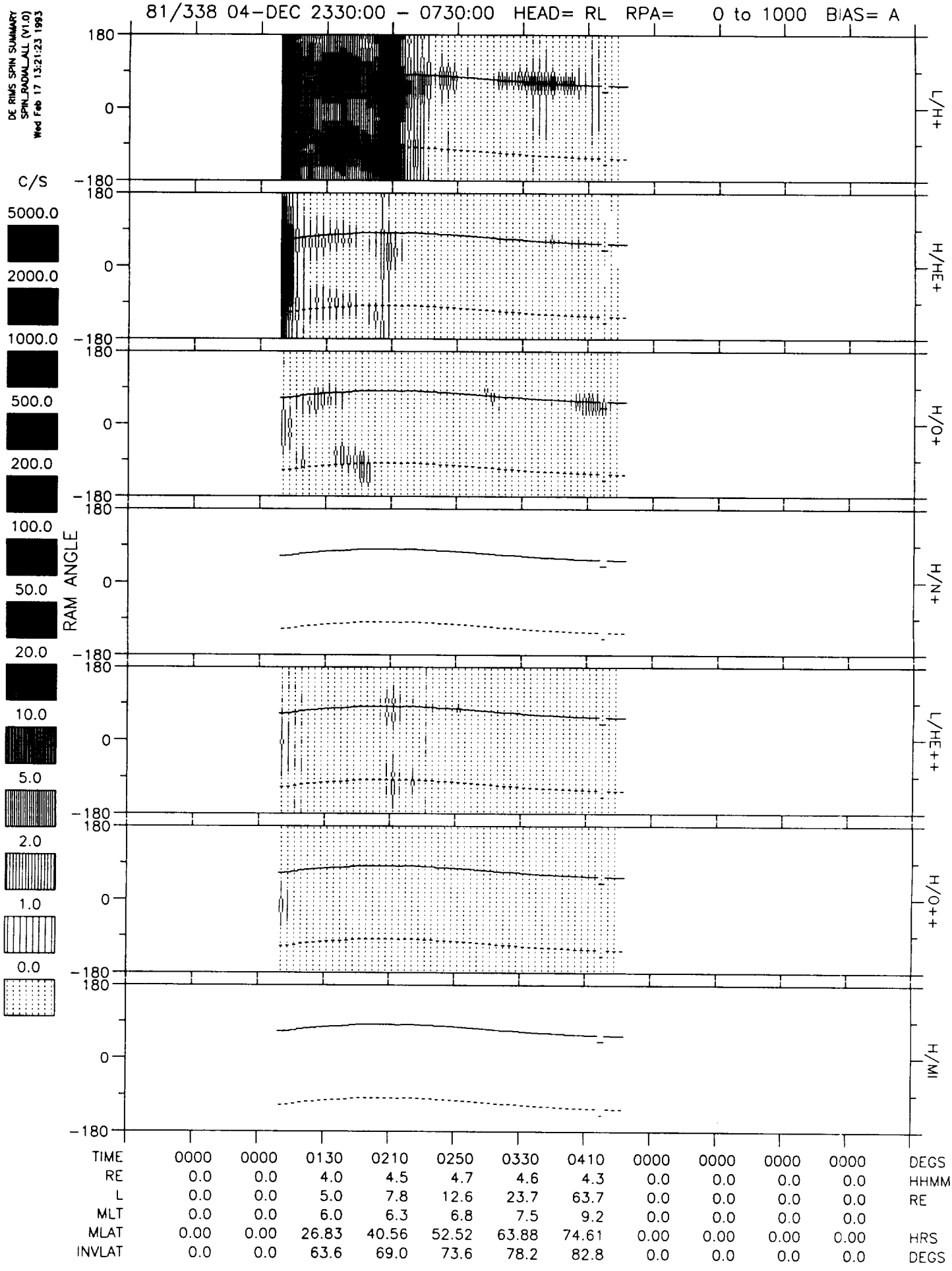

81/337 03-DEC 1330:00 – 2130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:07:46 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 1930 0000 2050 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.2 0.0 2.2 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 6.4 0.0 2.4 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 18.6 0.0 5.9
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 56.22 0.00 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 66.7 0.0 50.0 DEGS

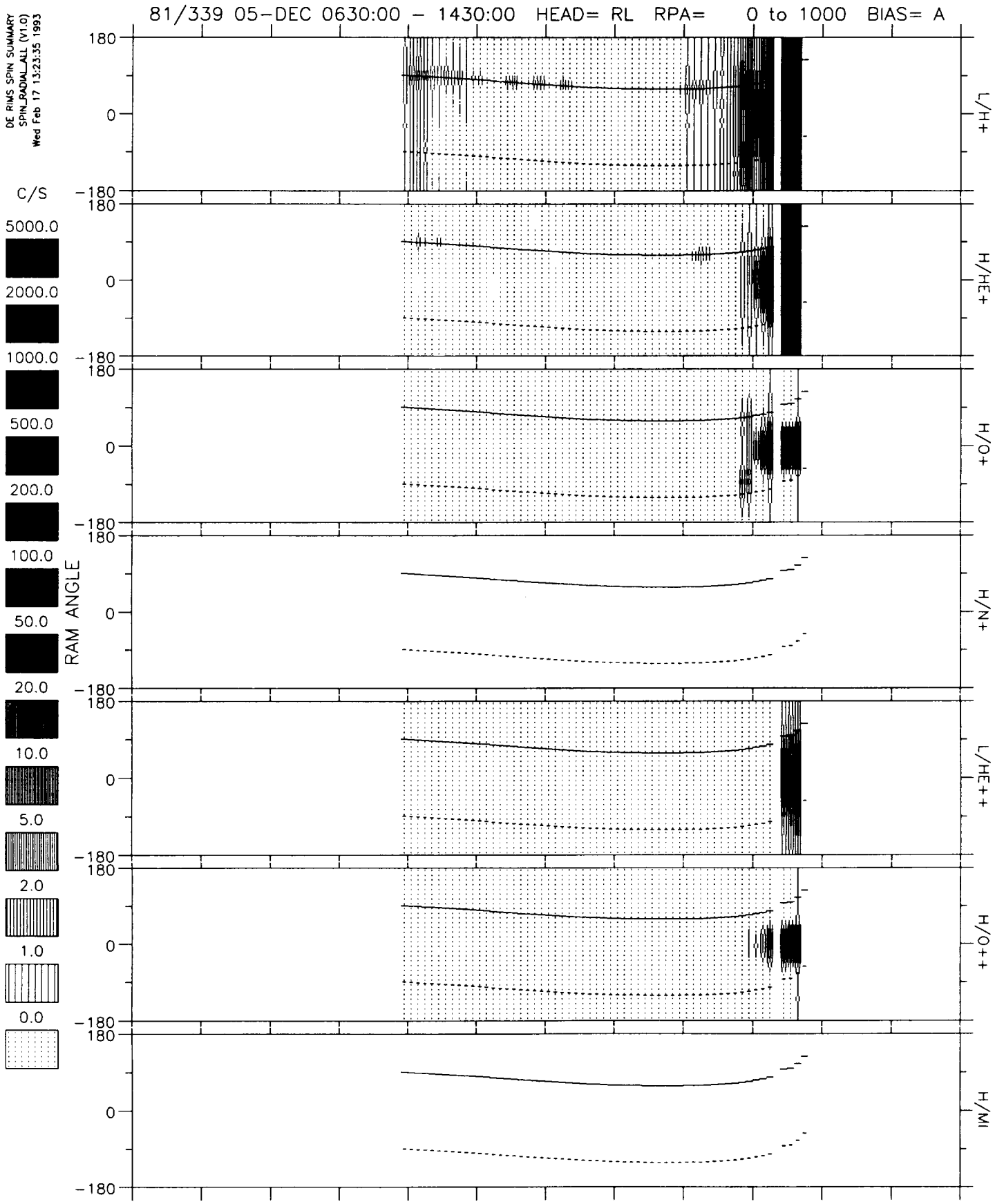

81/337 03-DEC 2015:00 - 0415:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:12:23 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2055 2135 2215 2255 2335 0015 0000 0000 0215 0000 0000 DEGS
RE 2.3 3.4 4.1 4.5 4.7 4.5 0.0 0.0 2.4 0.0 0.0 HHMM
L 2.4 3.5 5.2 7.7 11.7 20.4 0.0 0.0 9.7 0.0 0.0 RE
MLT 5.9 5.7 5.7 5.8 6.0 6.4 0.0 0.0 16.7 0.0 0.0
MLAT ***** 11.25 26.88 38.95 49.89 60.90 0.00 0.00 59.91 0.00 0.00 HRS
INVLAT 50.2 57.7 64.1 68.9 73.0 77.2 0.0 0.0 71.2 0.0 0.0 DEGS

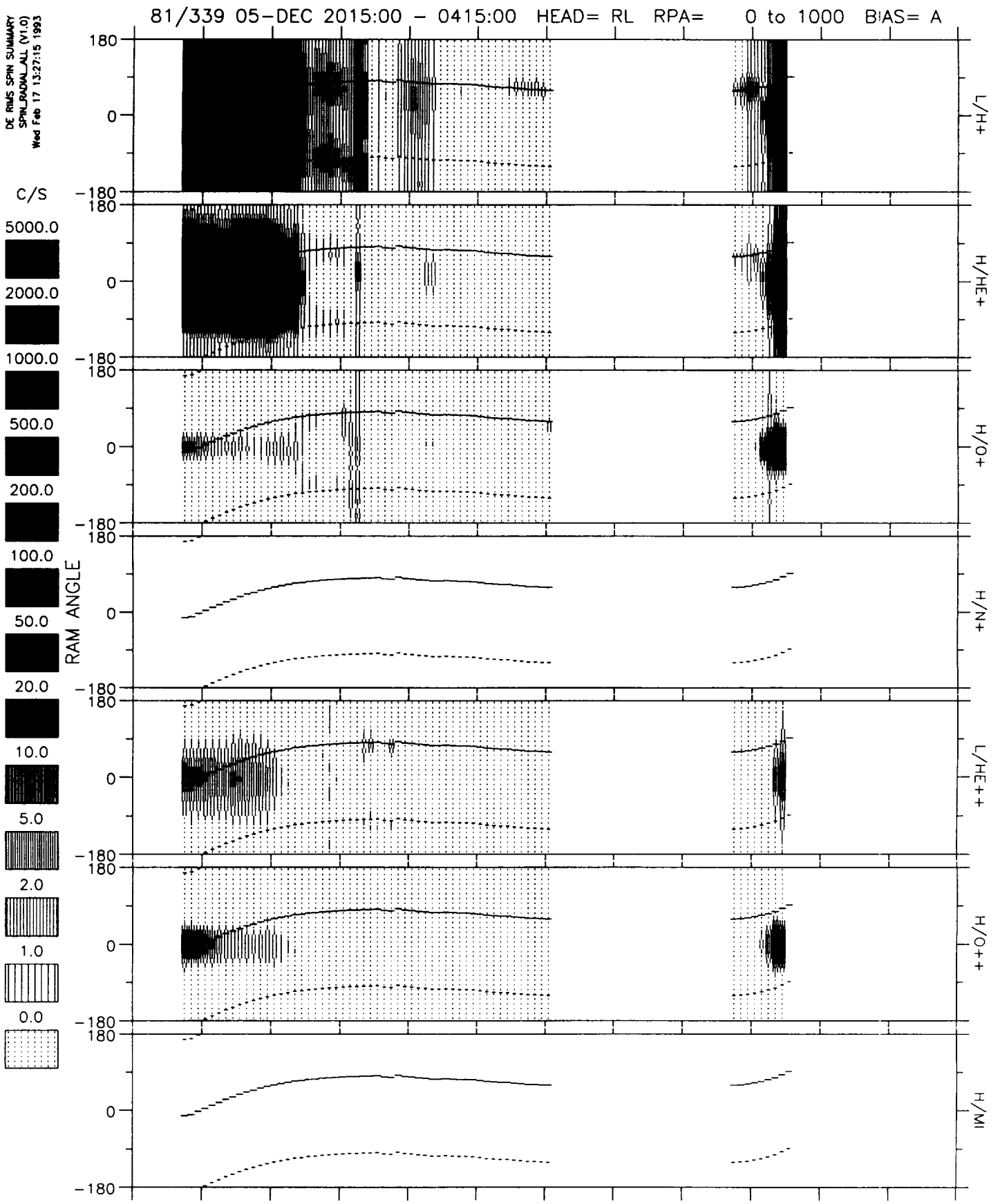

81/338 04-DEC 0300:00 - 1100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:14:31 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0900 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.6 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 6.6 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 18.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 49.42 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 67.0 0.0 0.0 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:15:48 1993
81/338 04-DEC 1000:00 - 1800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1040 1120 1200 1240 1320 1400 0000 1520 1600 0000 0000 DEGS
RE 2.4 3.5 4.2 4.5 4.7 4.5 0.0 3.4 2.3 0.0 0.0 HHMM
L 2.6 5.2 9.9 18.1 35.1 80.8 0.0 41.6 5.2 0.0 0.0 RE
MLT 6.3 6.2 5.9 5.5 4.8 3.5 0.0 20.7 18.9 0.0 0.0
MLAT 9.09 34.63 49.51 60.04 68.60 75.88 0.00 72.73 49.30 0.00 0.00 HRS
INVLAT 51.3 64.0 71.5 76.4 80.3 83.6 0.0 81.1 64.1 0.0 0.0 DEGS

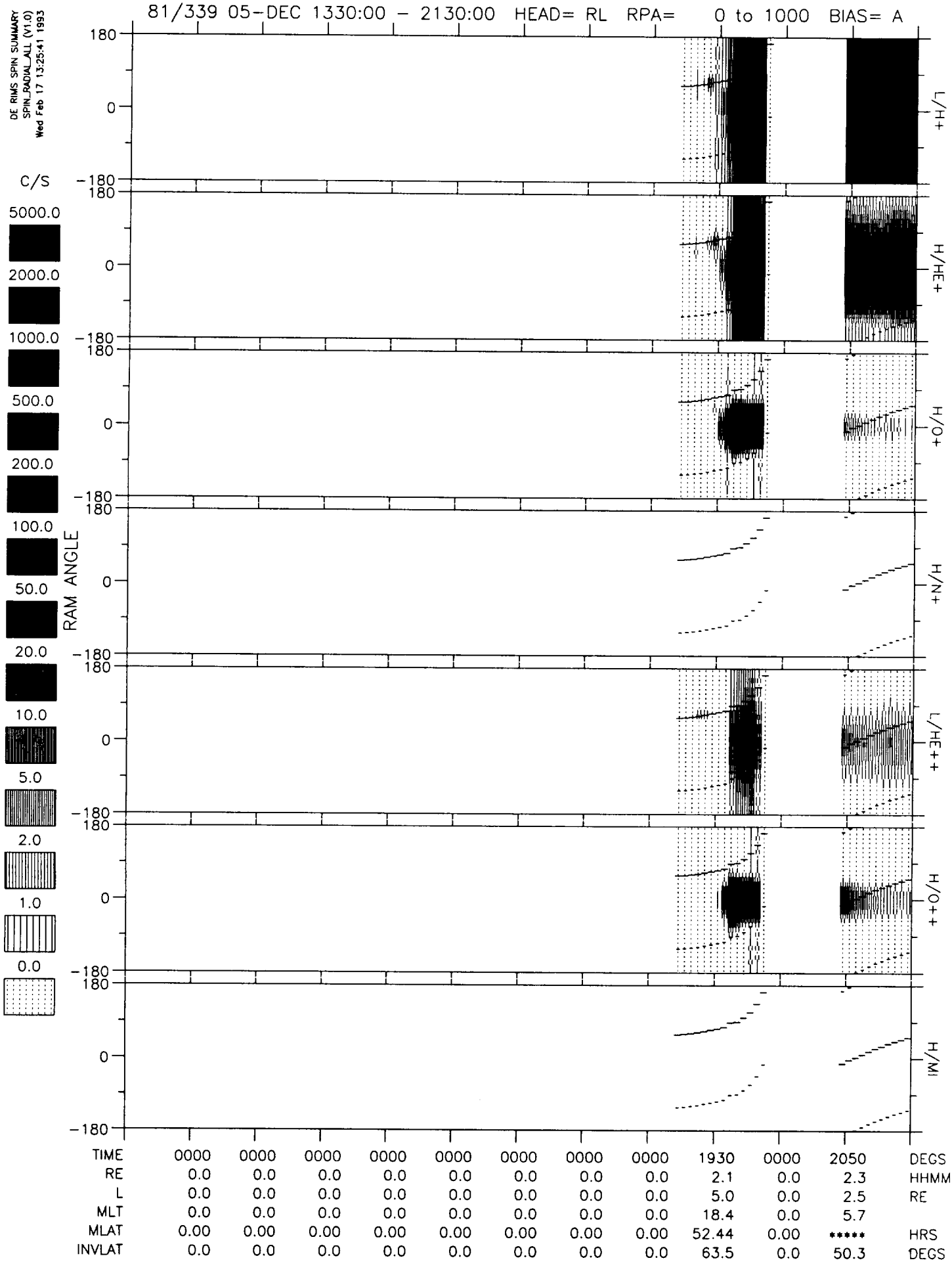

81/338 04-DEC 1715:00 - 0115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:18:38 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 2115 2155 2235 2315 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.3 3.7 2.8 1.5 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 34.2 -0.0 48.6 1.9 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 5.2 5.1 17.4 17.6 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 68.02 81.64 77.08 24.34 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 80.2 -0.0 81.8 43.1 0.0 0.0 DEGS

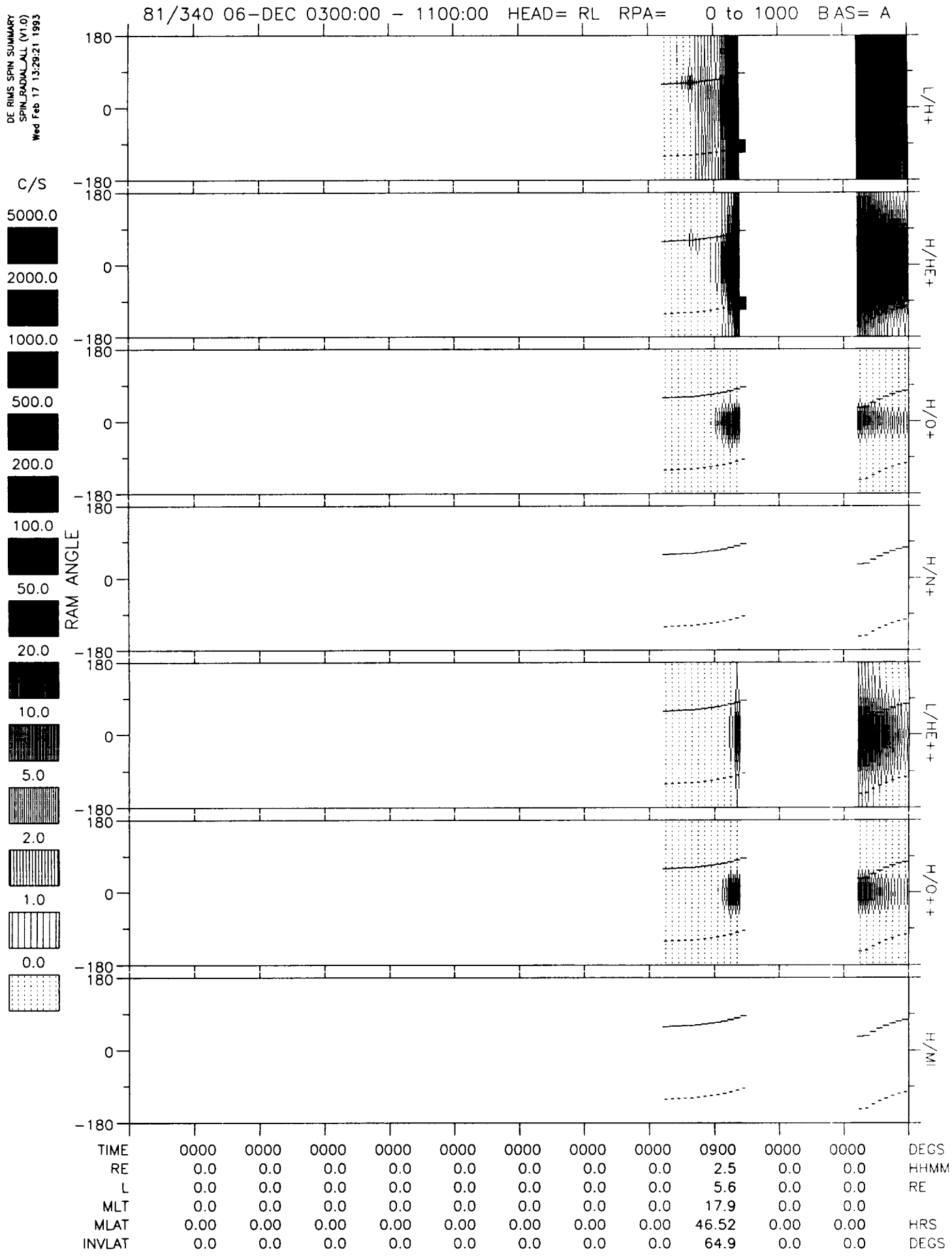

81/338 04-DEC 2330:00 - 0730:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:21:23 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0130 0210 0250 0330 0410 0000 0000 0000 0000 DEGS
RE 0.0 0.0 4.0 4.5 4.7 4.6 4.3 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 5.0 7.8 12.6 23.7 63.7 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 6.0 6.3 6.8 7.5 9.2 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 26.83 40.56 52.52 63.88 74.61 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 63.6 69.0 73.6 78.2 82.8 0.0 0.0 0.0 0.0 DEGS

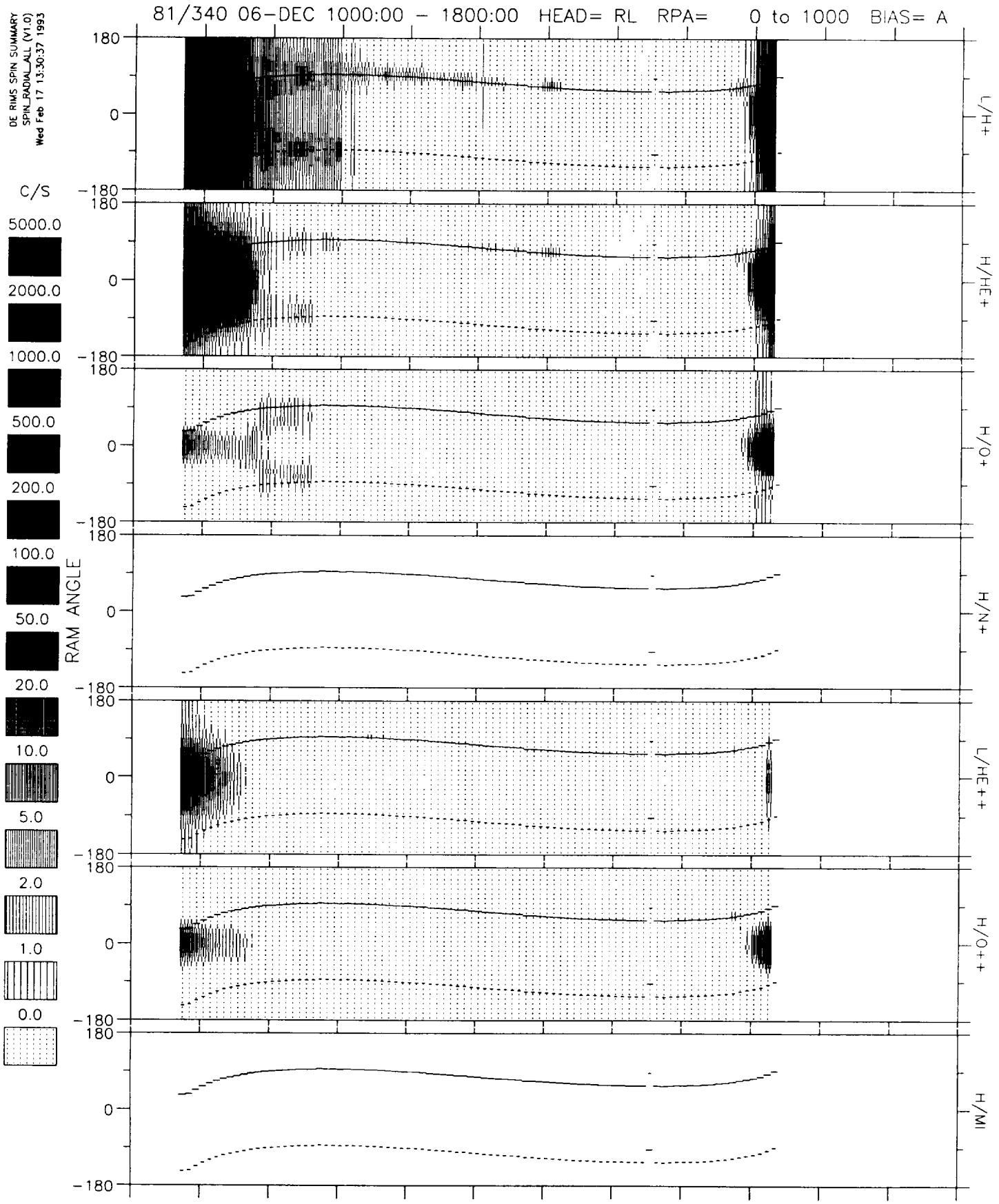

81/339 05-DEC 0630:00 - 1430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:23:35 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
+N/H
L/HE++
H/O++
H/NI
TIME 0000 0000 0000 0910 0950 1030 1110 1150 1230 0000 0000 DEGS
RE 0.0 0.0 0.0 4.5 4.7 4.5 4.2 3.5 2.4 0.0 0.0 HHMM
L 0.0 0.0 0.0 17.8 44.0 100.0 100.0 34.3 5.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 6.7 6.6 6.0 20.1 19.0 18.6 0.0 0.0
MLAT 0.00 0.00 0.00 60.75 71.96 82.70 85.05 70.21 44.69 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 76.3 81.3 86.2 88.2 80.2 63.6 0.0 0.0 DEGS

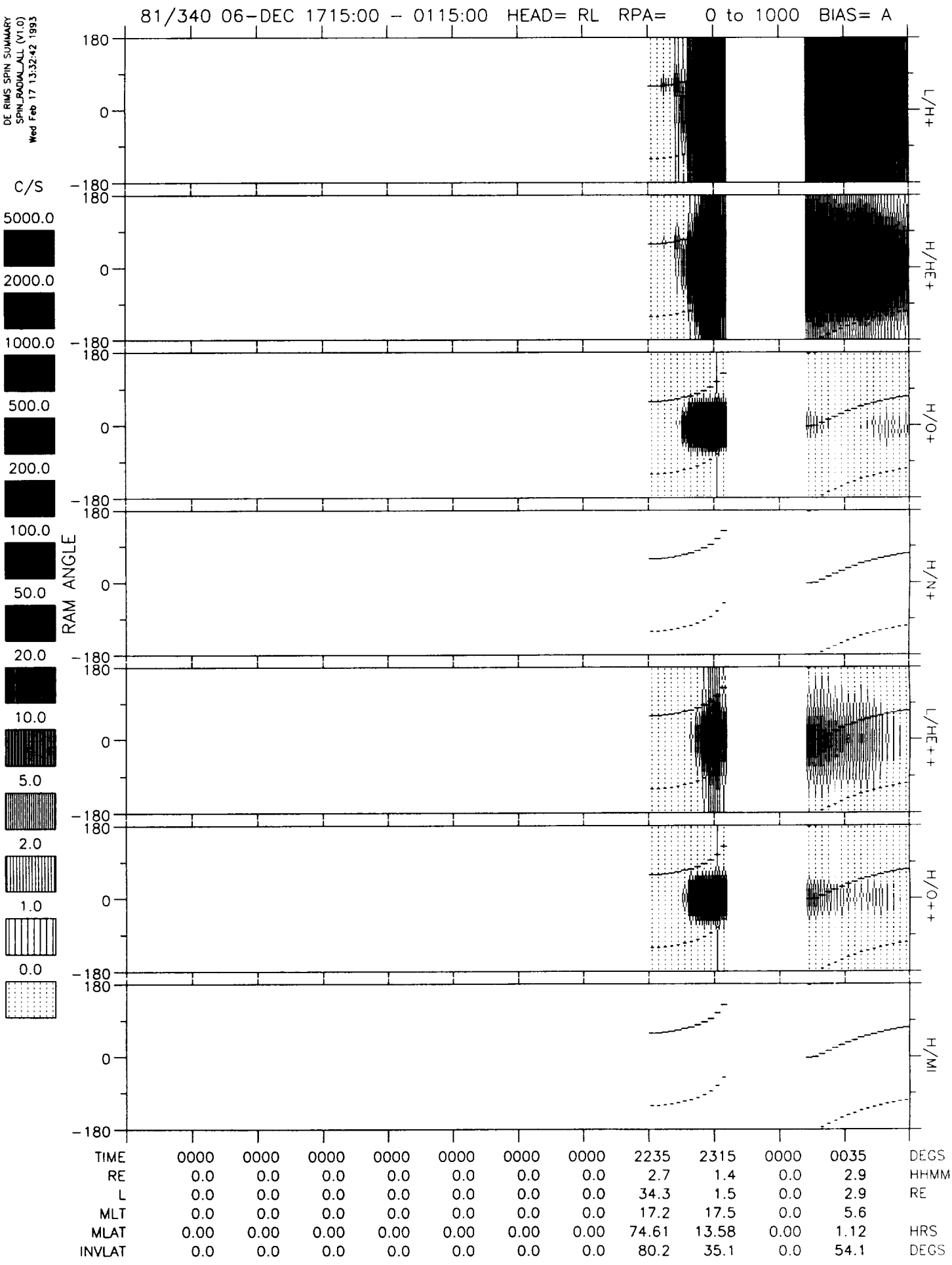


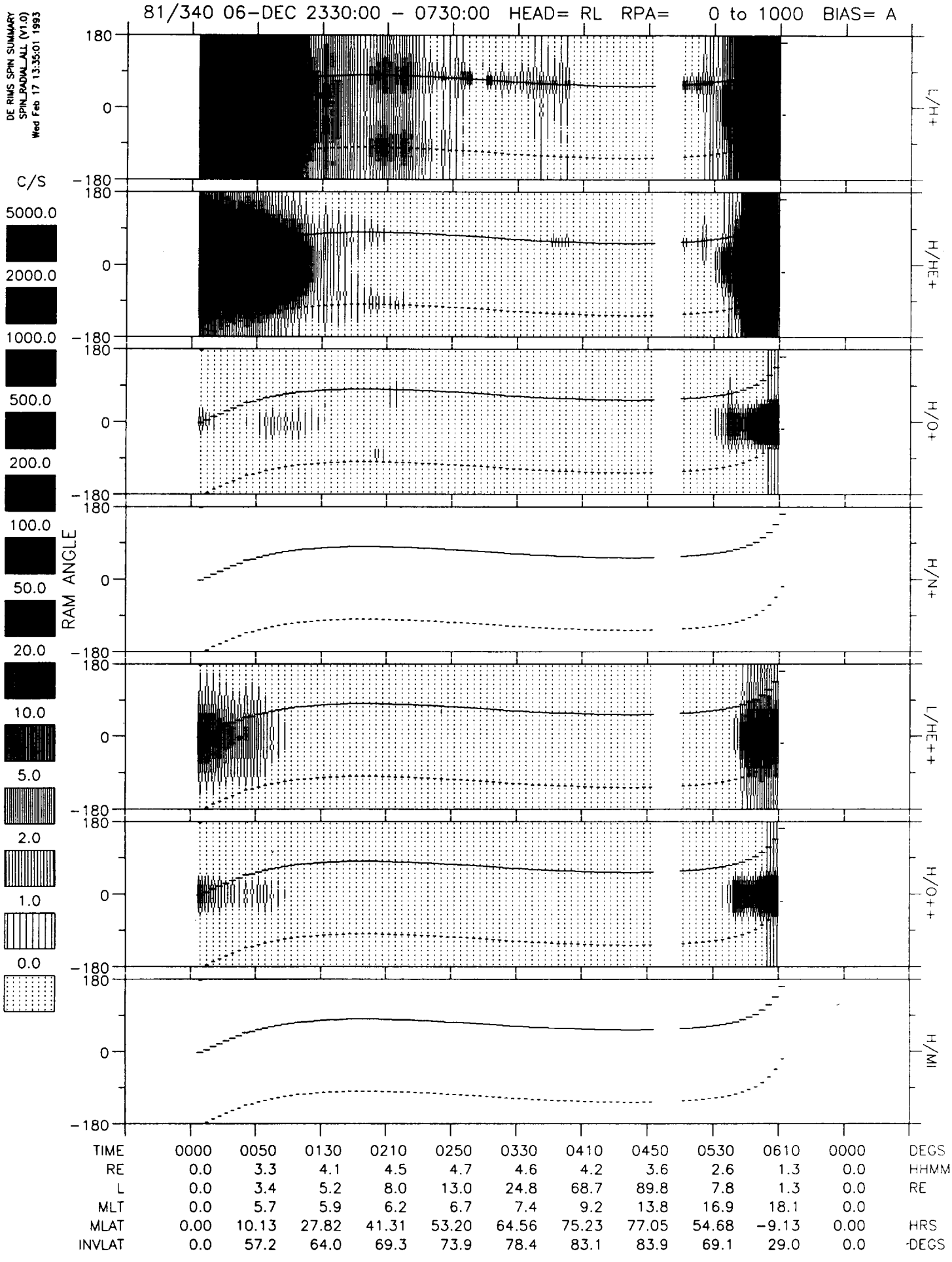
TIME	2055	2135	2215	2255	2335	0015	0000	0000	0215	0000	0000	DEGS
RE	2.5	3.5	4.2	4.5	4.7	4.5	0.0	0.0	2.3	0.0	0.0	HHMM
L	2.5	3.6	5.4	7.9	12.0	20.0	0.0	0.0	7.4	0.0	0.0	RE
MLT	5.7	5.6	5.6	5.7	5.9	6.3	0.0	0.0	16.7	0.0	0.0	
MLAT	*****	12.47	27.56	39.47	50.39	60.60	0.00	0.00	47.68	0.00	0.00	HRS
INVLAT	50.8	58.3	64.4	69.1	73.2	77.1	0.0	0.0	68.4	0.0	0.0	DEGS

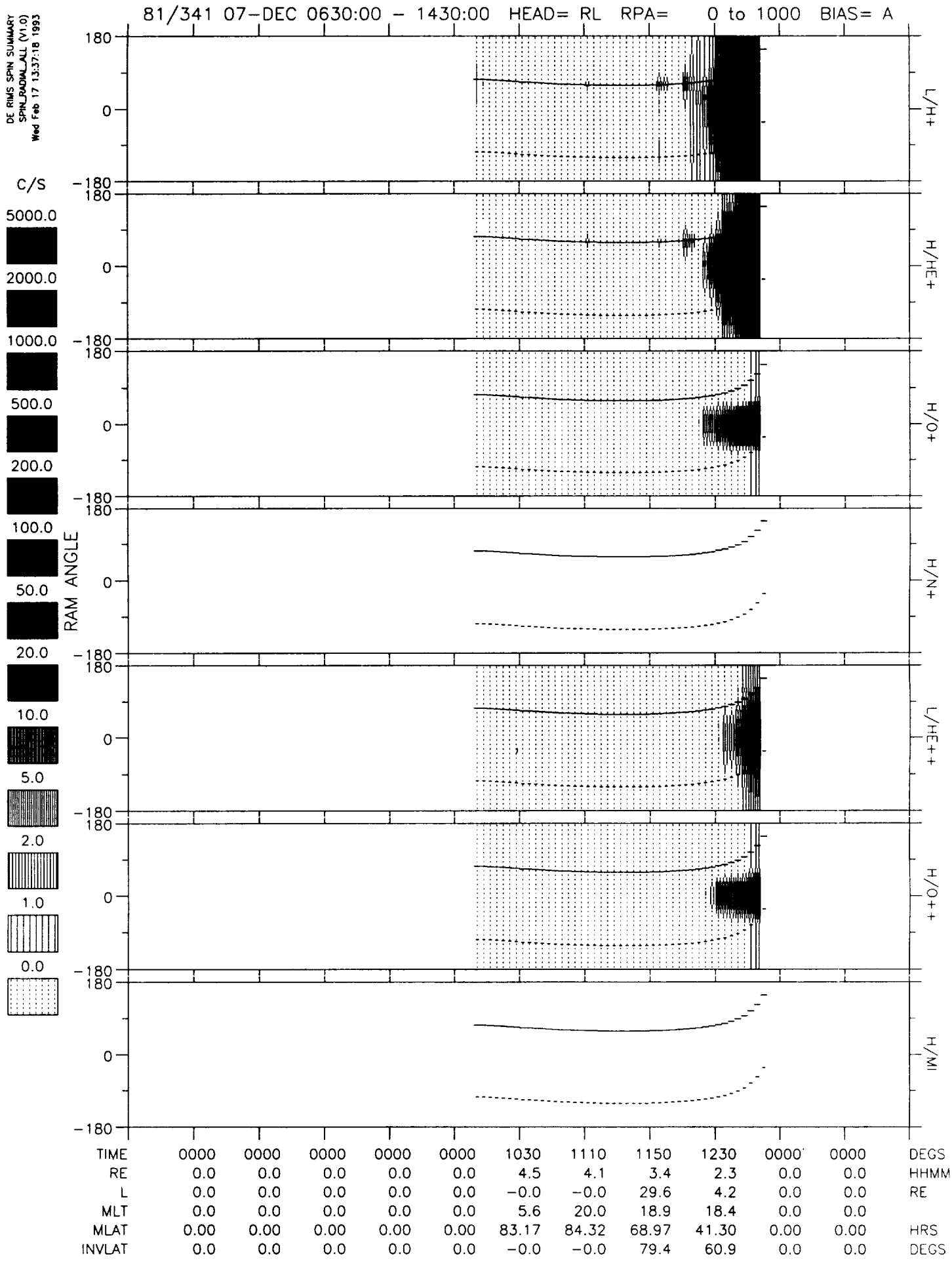

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:25:41 1993
81/339 05-DEC 1330:00 - 2130:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 1930 0000 2050 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.1 0.0 2.3 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.0 0.0 2.5 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 18.4 0.0 5.7
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 52.44 0.00 ***** HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 63.5 0.0 50.3 DEGS

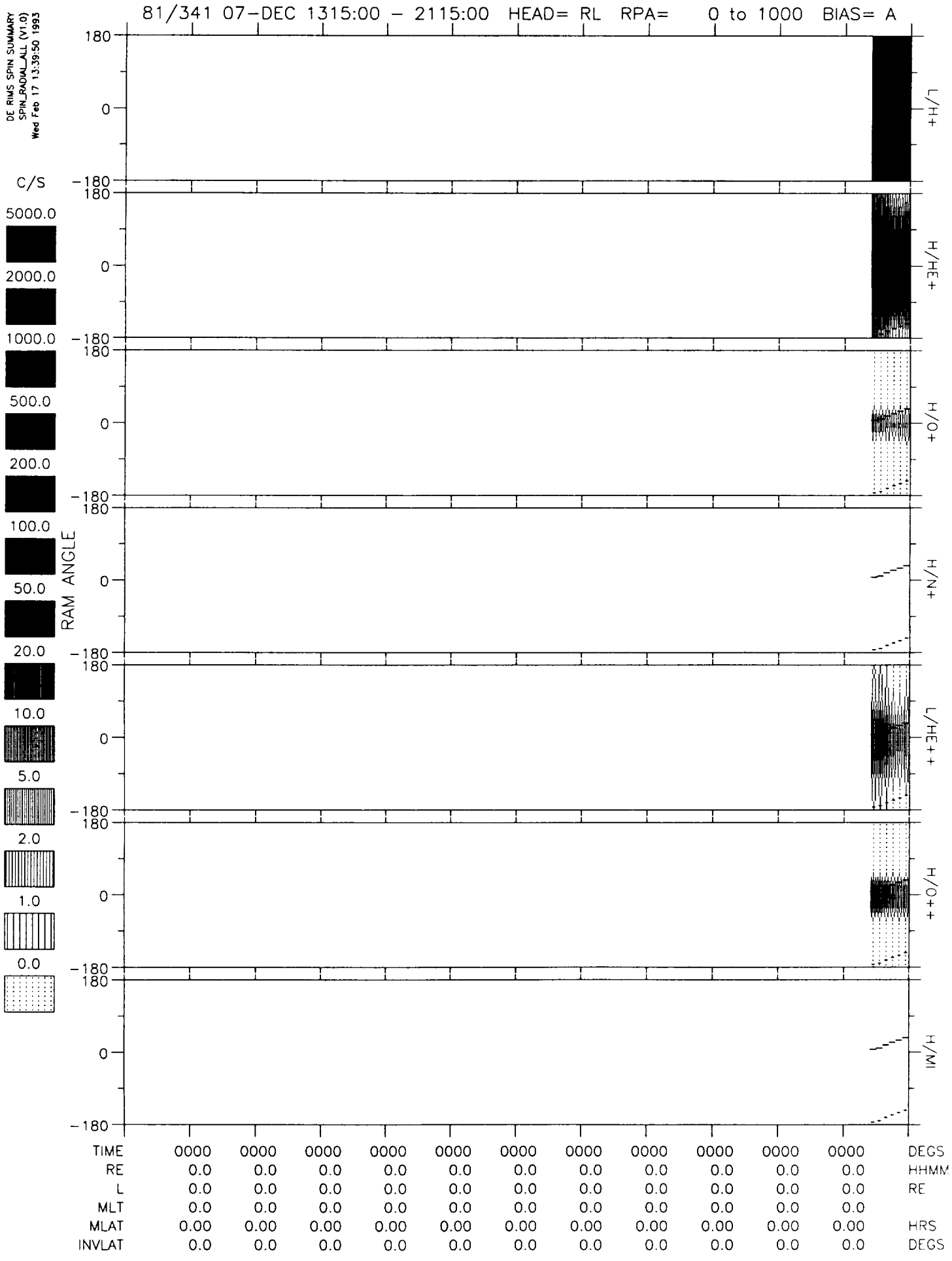

81/340 06-DEC 0300:00 - 1100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:29:21 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0900 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.5 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.6 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 17.9 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 46.52 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 64.9 0.0 0.0 DEGS

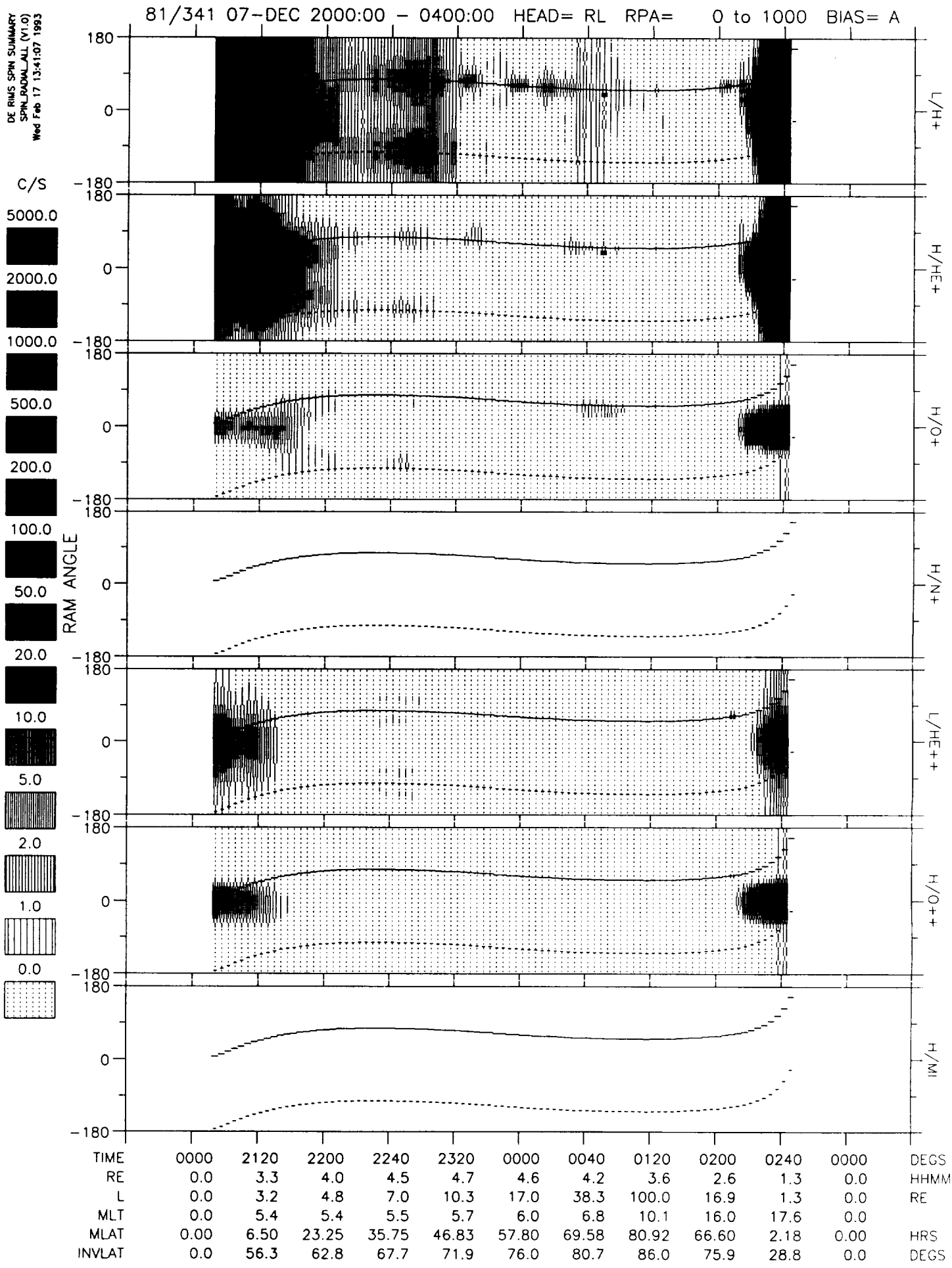

81/340 06-DEC 1000:00 - 1800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:30:37 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1040 1120 1200 1240 1320 1400 1440 1520 1600 0000 0000 DEGS
RE 2.6 3.6 4.2 4.6 4.7 4.5 4.1 3.3 2.2 0.0 0.0 HHMM
L 2.8 5.5 10.2 18.4 35.3 80.4 100.0 36.3 4.3 0.0 0.0 RE
MLT 6.2 6.0 5.8 5.3 4.6 3.3 0.1 20.4 18.7 0.0 0.0
MLAT 12.15 35.99 49.98 60.21 68.63 75.86 79.70 71.88 45.94 0.00 0.00 HRS
INVLAT 52.9 64.8 71.8 76.5 80.3 83.6 85.5 80.4 61.2 0.0 0.0 DEGS

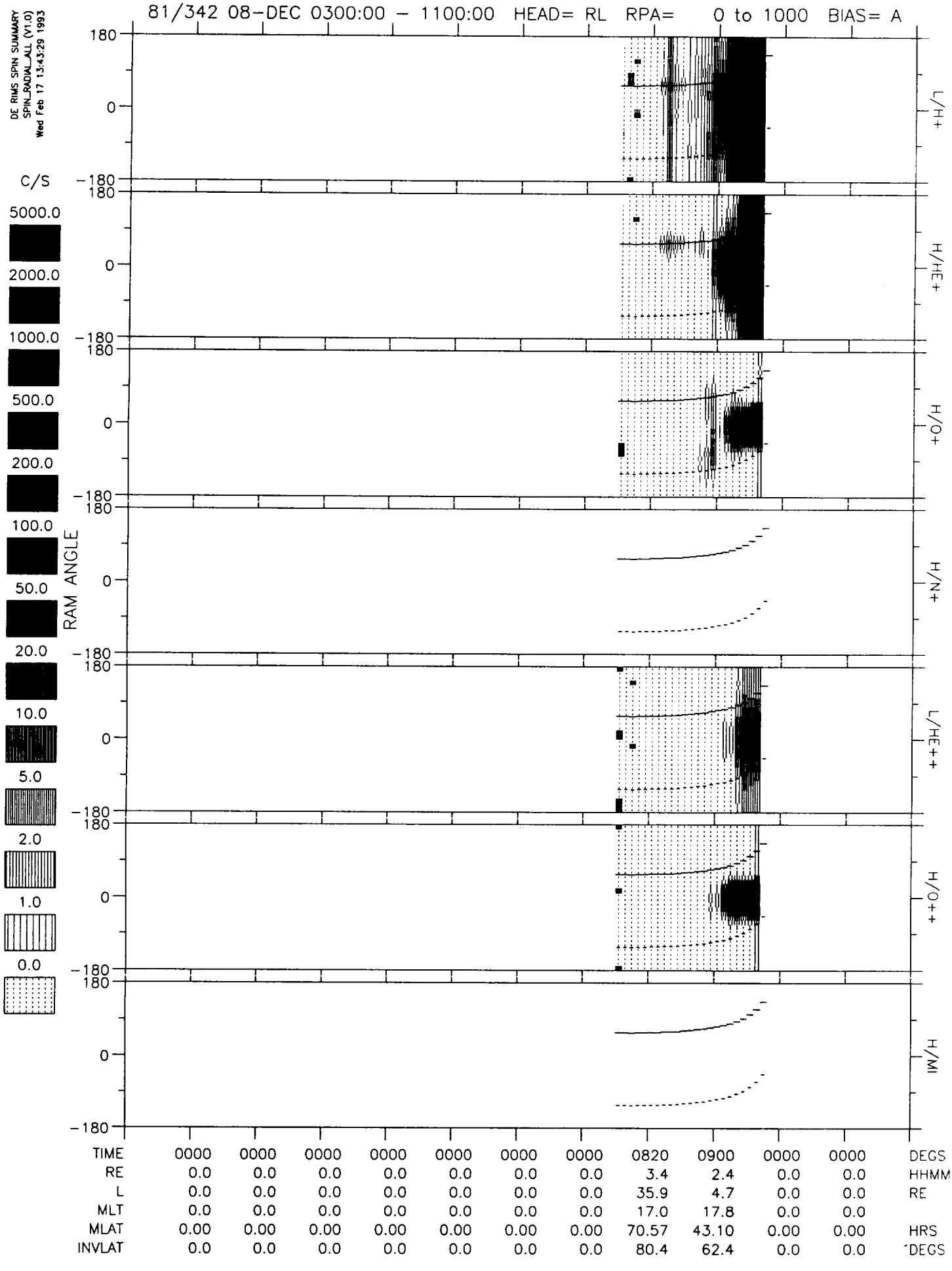

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:32:42 1993
81/340 06-DEC 1715:00 - 0115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 2235 2315 0000 0035 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.7 1.4 0.0 2.9 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 34.3 1.5 0.0 2.9 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 17.2 17.5 0.0 5.6
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 74.61 13.58 0.00 1.12 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 80.2 35.1 0.0 54.1 DEGS

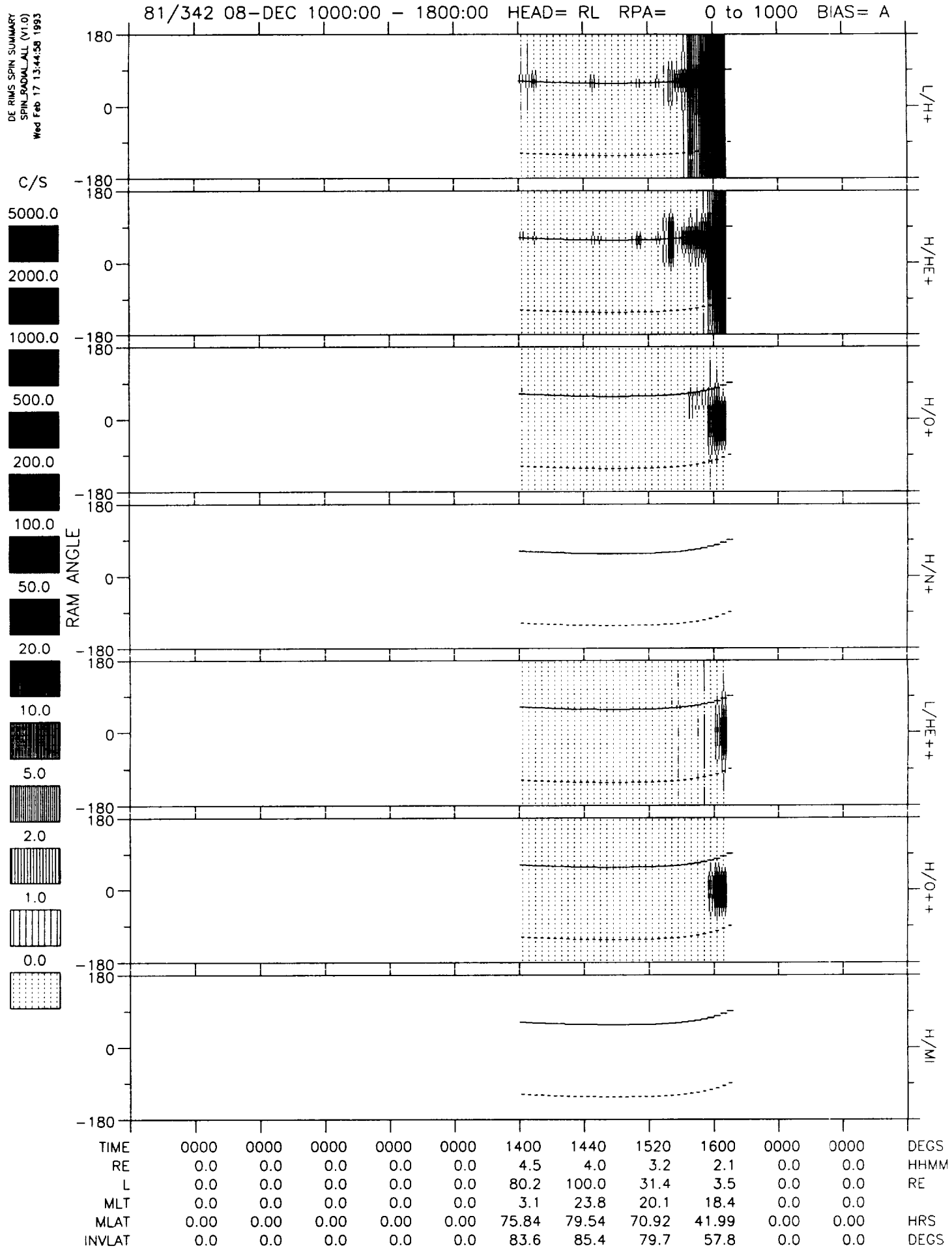

81/340 06-DEC 2330:00 - 0730:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:35:01 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0050 0130 0210 0250 0330 0410 0450 0530 0610 0000 DEGS
RE 0.0 3.3 4.1 4.5 4.7 4.6 4.2 3.6 2.6 1.3 0.0 HHMM
L 0.0 3.4 5.2 8.0 13.0 24.8 68.7 89.8 7.8 1.3 0.0 RE
MLT 0.0 5.7 5.9 6.2 6.7 7.4 9.2 13.8 16.9 18.1 0.0
MLAT 0.00 10.13 27.82 41.31 53.20 64.56 75.23 77.05 54.68 -9.13 0.00 HRS
INVLAT 0.0 57.2 64.0 69.3 73.9 78.4 83.1 83.9 69.1 29.0 0.0 DEGS

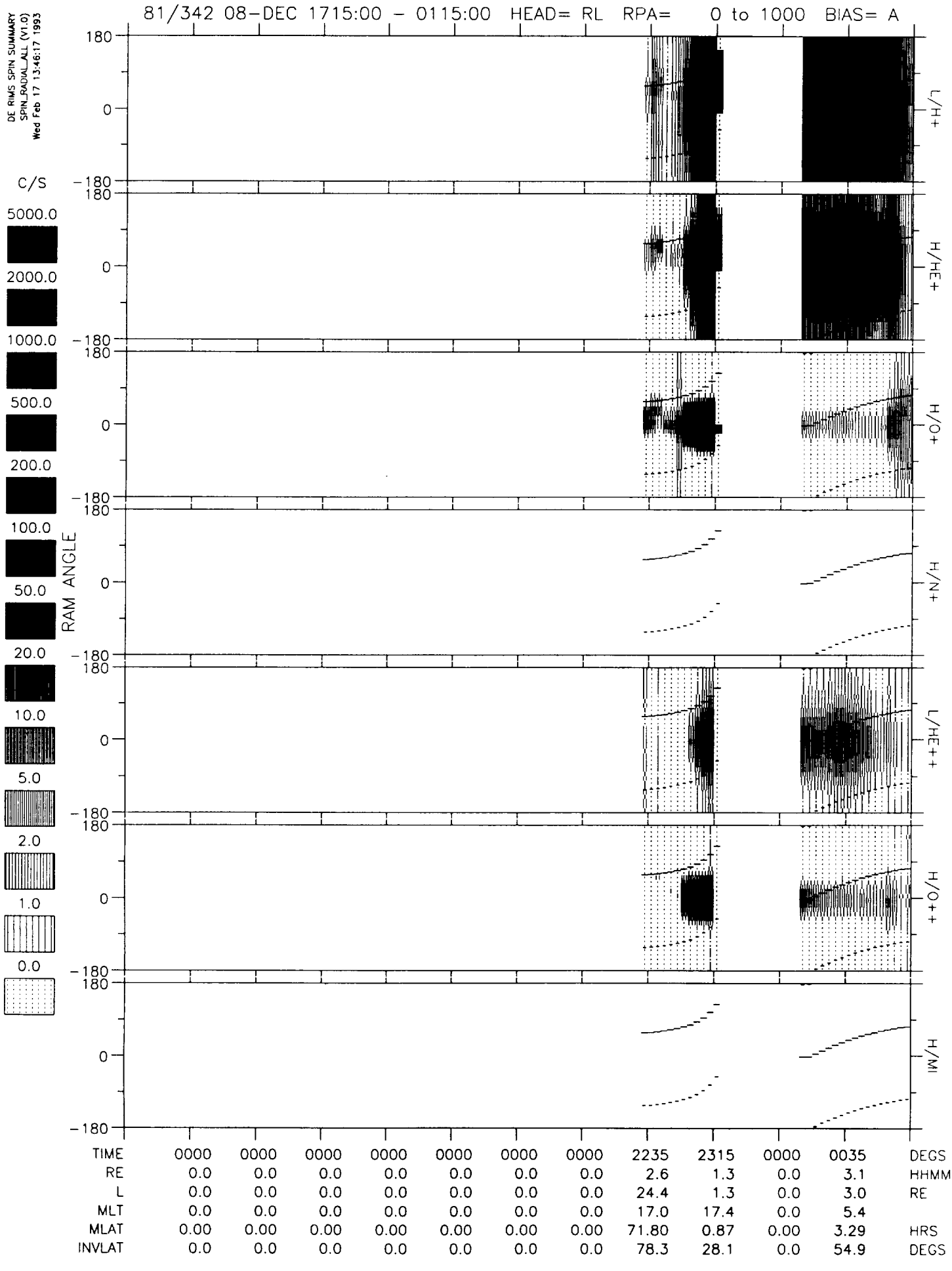

81/341 07-DEC 0630:00 - 1430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:37:18 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 0000 0000 0000 0000 1030 1110 1150 1230 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.5 4.1 3.4 2.3 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 -0.0 -0.0 29.6 4.2 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 5.6 20.0 18.9 18.4 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 83.17 84.32 68.97 41.30 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 -0.0 -0.0 79.4 60.9 0.0 0.0 DEGS

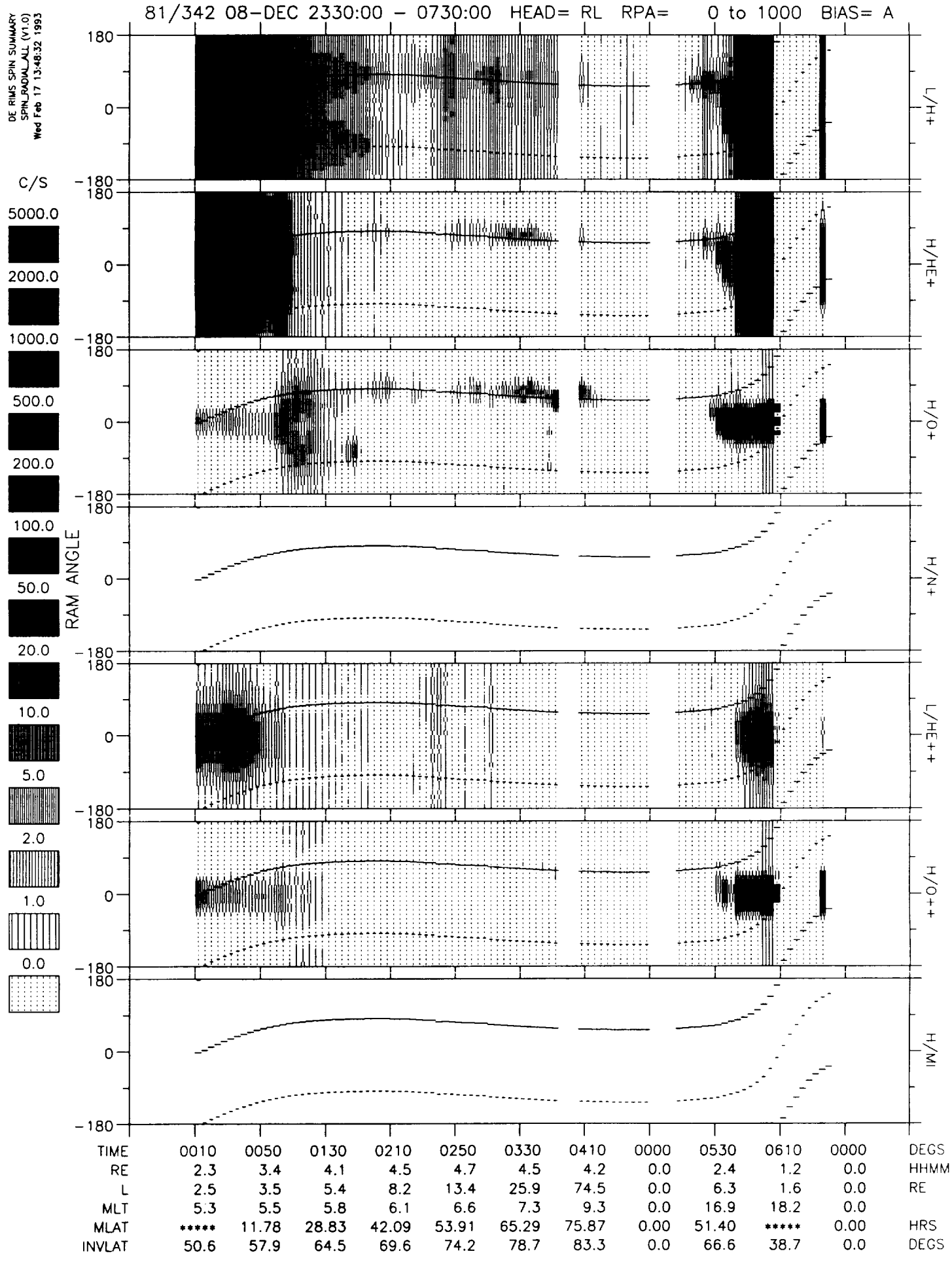

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:39:50 1993
81/341 07-DEC 1315:00 - 2115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

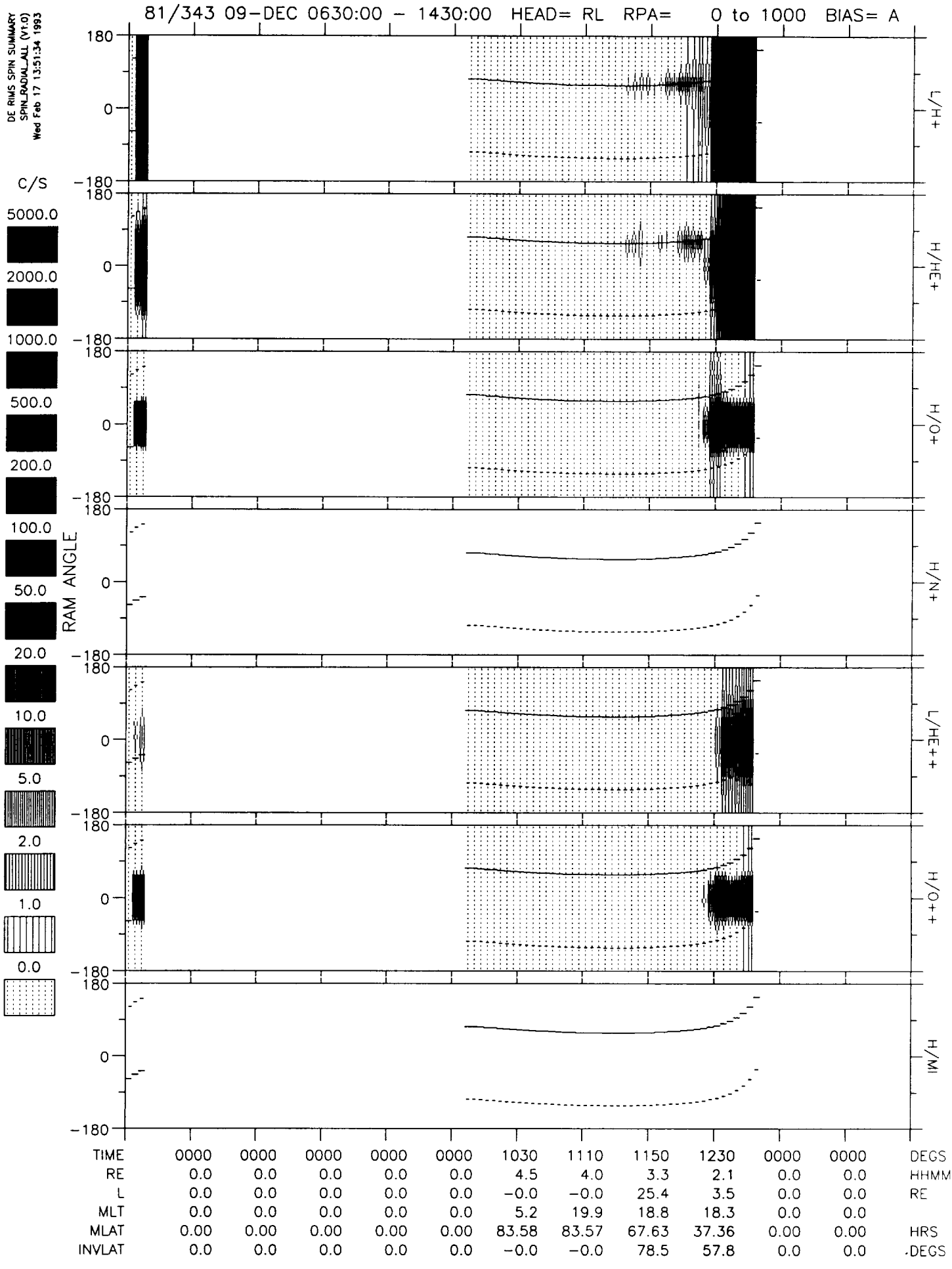

81/341 07-DEC 2000:00 - 0400:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:41:07 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 0000 2120 2200 2240 2320 0000 0040 0120 0200 0240 0000 DEGS
RE 0.0 3.3 4.0 4.5 4.7 4.6 4.2 3.6 2.6 1.3 0.0 HHMM
L 0.0 3.2 4.8 7.0 10.3 17.0 38.3 100.0 16.9 1.3 0.0 RE
MLT 0.0 5.4 5.4 5.5 5.7 6.0 6.8 10.1 16.0 17.6 0.0
MLAT 0.00 6.50 23.25 35.75 46.83 57.80 69.58 80.92 66.60 2.18 0.00 HRS
INVLAT 0.0 56.3 62.8 67.7 71.9 76.0 80.7 86.0 75.9 28.8 0.0 DEGS

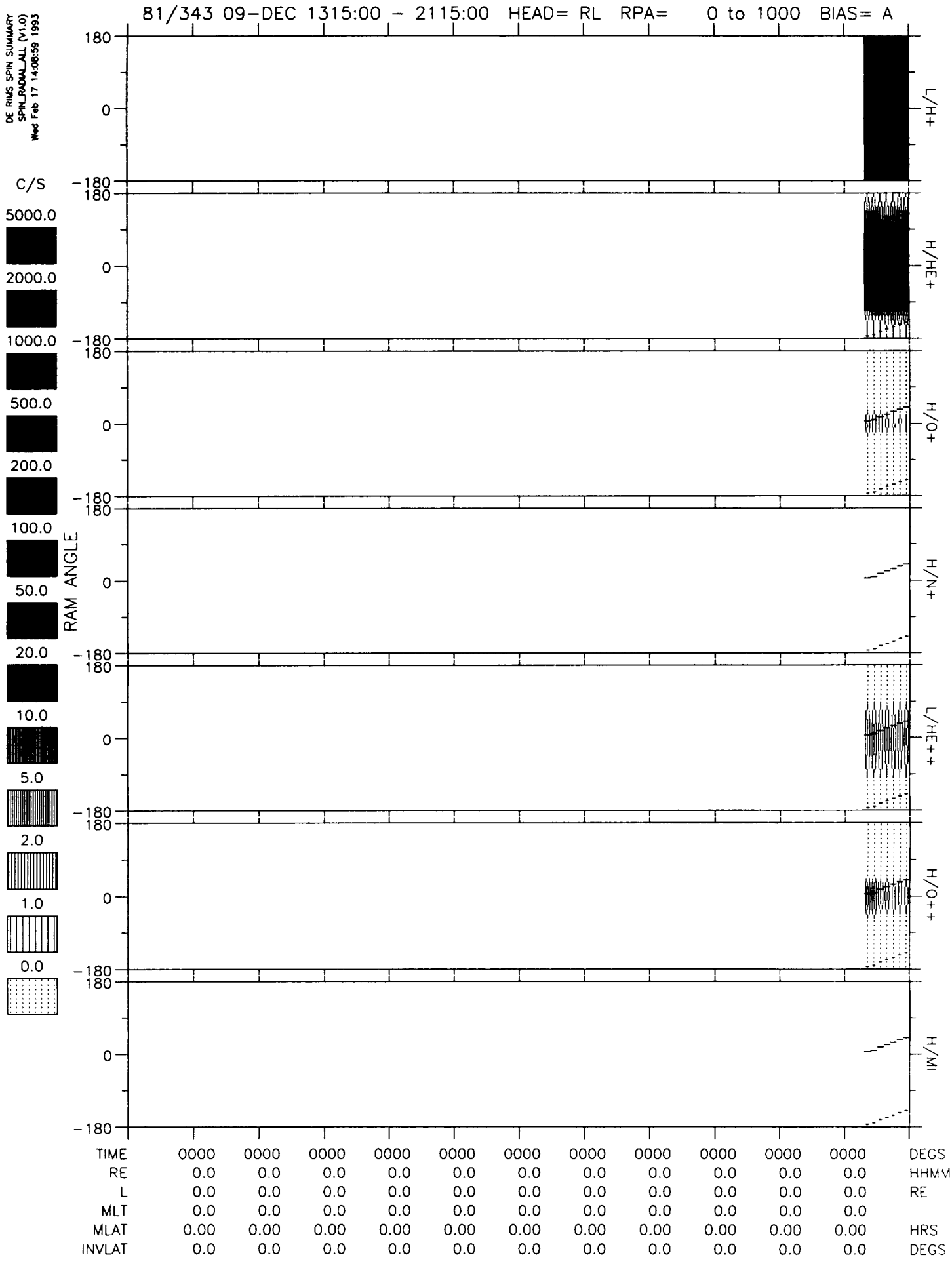

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:43:29 1993
81/342 08-DEC 0300:00 - 1100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0820 0900 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 2.4 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 35.9 4.7 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 17.0 17.8 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 70.57 43.10 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 80.4 62.4 0.0 0.0 DEGS

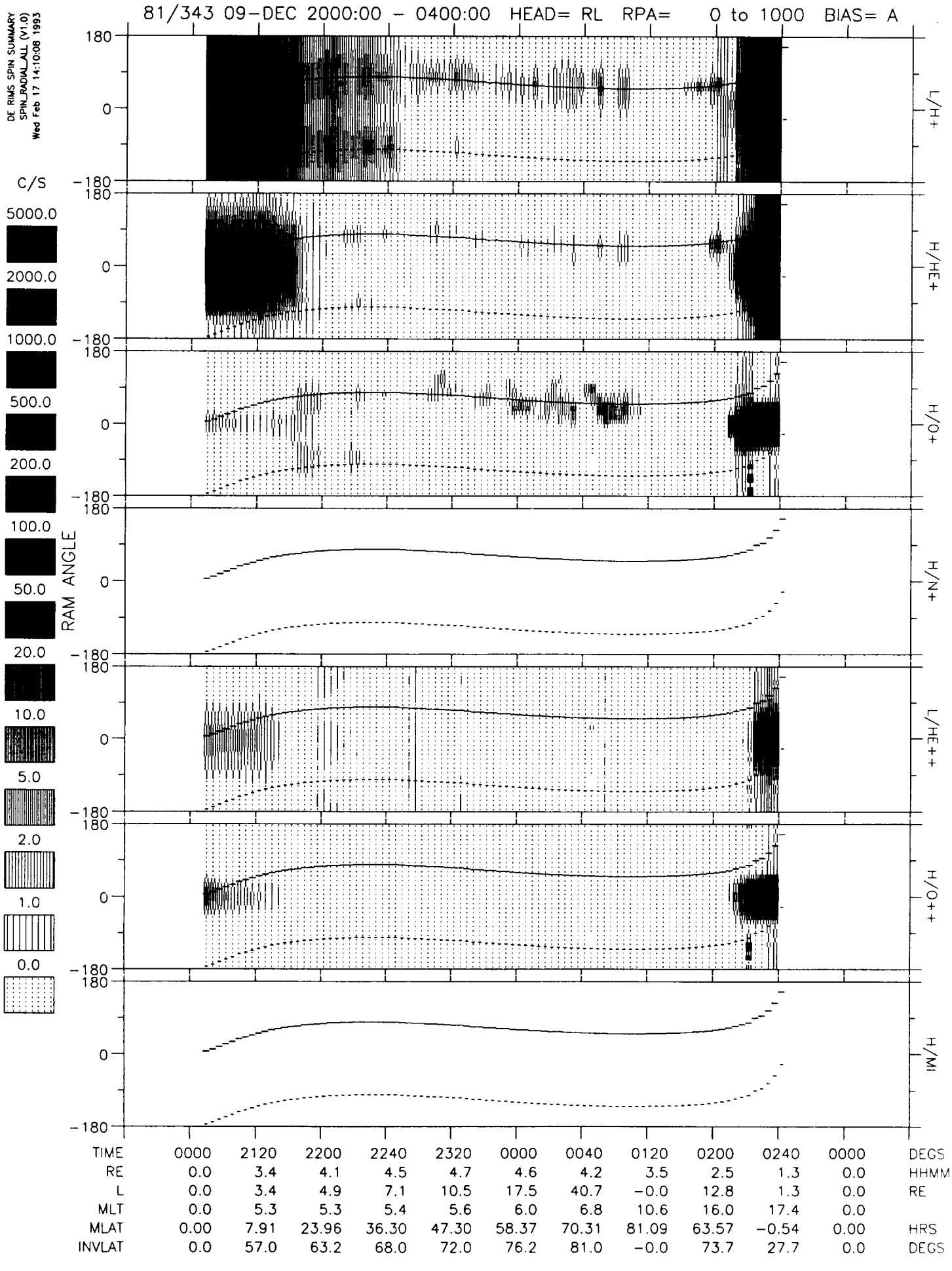

81/342 08-DEC 1000:00 - 1800:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:44:58 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 1400 1440 1520 1600 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.5 4.0 3.2 2.1 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 80.2 100.0 31.4 3.5 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 3.1 23.8 20.1 18.4 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 75.84 79.54 70.92 41.99 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 83.6 85.4 79.7 57.8 0.0 0.0 DEGS

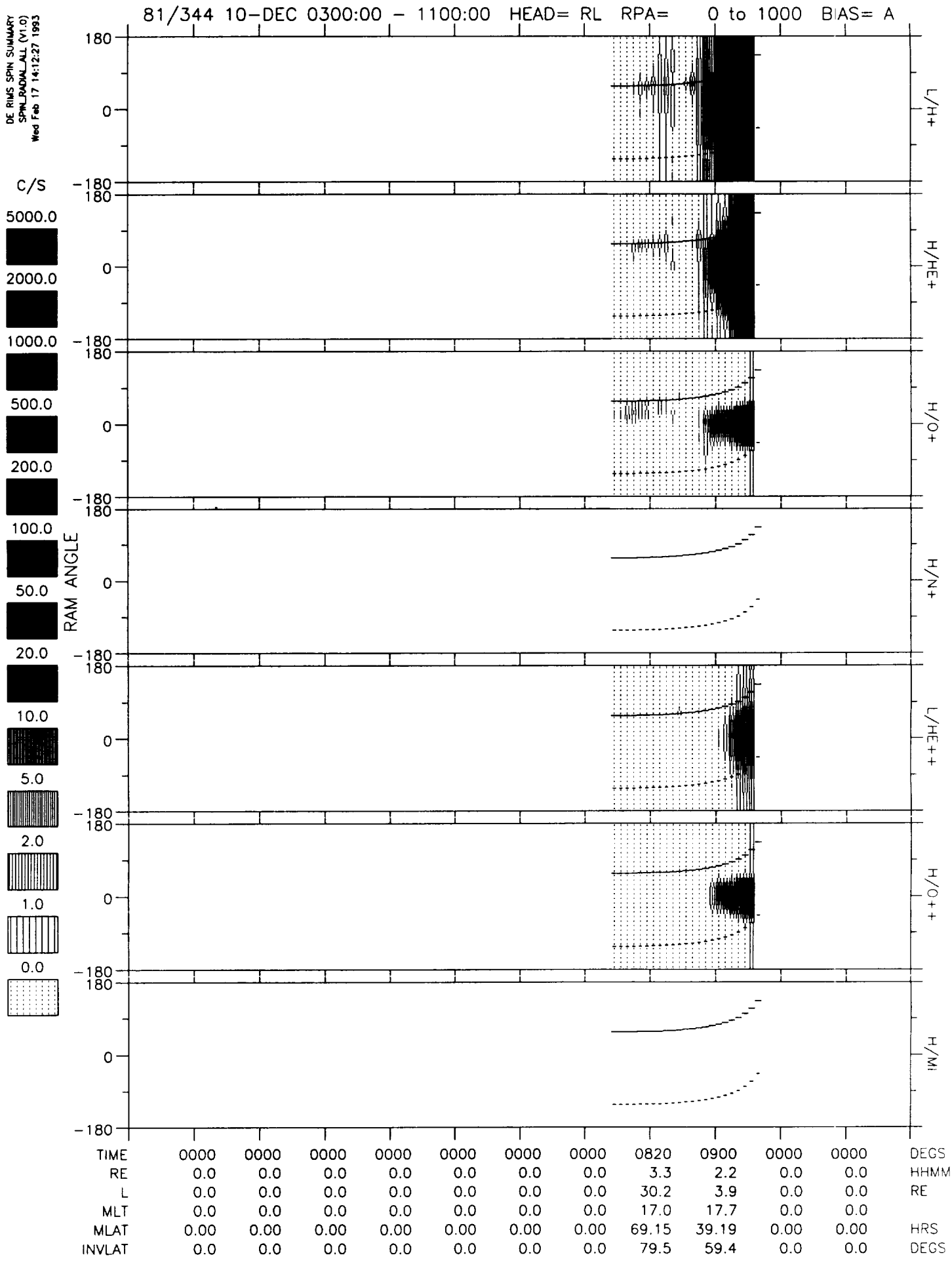

81/342 08-DEC 1715:00 - 0115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:46:17 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 2235 2315 0000 0035 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.6 1.3 0.0 3.1 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 24.4 1.3 0.0 3.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 17.0 17.4 0.0 5.4
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 71.80 0.87 0.00 3.29 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 78.3 28.1 0.0 54.9 DEGS

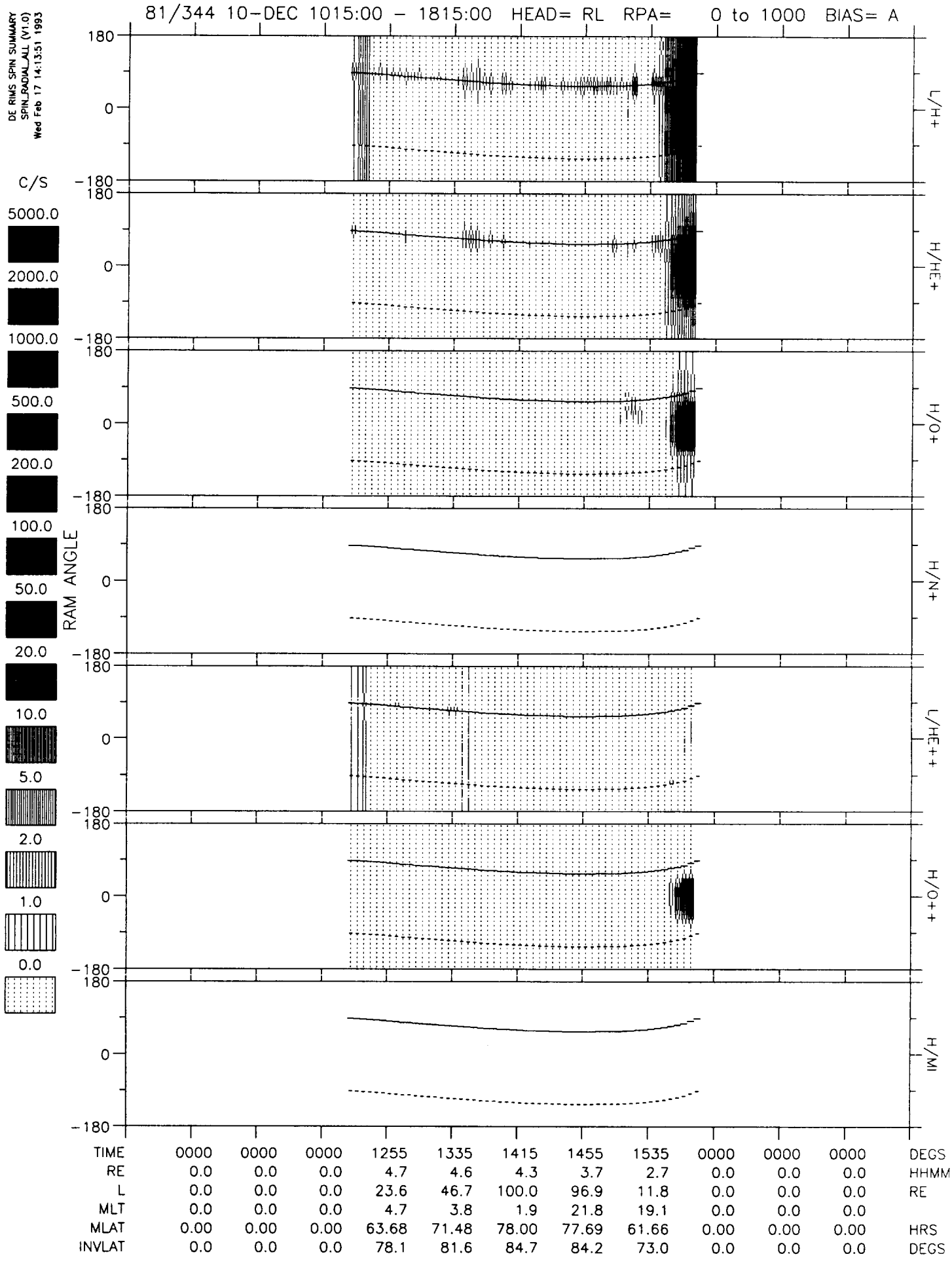

81/342 08-DEC 2330:00 - 0730:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:48:32 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0010 0050 0130 0210 0250 0330 0410 0000 0530 0610 0000 DEGS
RE 2.3 3.4 4.1 4.5 4.7 4.5 4.2 0.0 2.4 1.2 0.0 HHMM
L 2.5 3.5 5.4 8.2 13.4 25.9 74.5 0.0 6.3 1.6 0.0 RE
MLT 5.3 5.5 5.8 6.1 6.6 7.3 9.3 0.0 16.9 18.2 0.0
MLAT ***** 11.78 28.83 42.09 53.91 65.29 75.87 0.00 51.40 ***** 0.00 HRS
INVLAT 50.6 57.9 64.5 69.6 74.2 78.7 83.3 0.0 66.6 38.7 0.0 DEGS

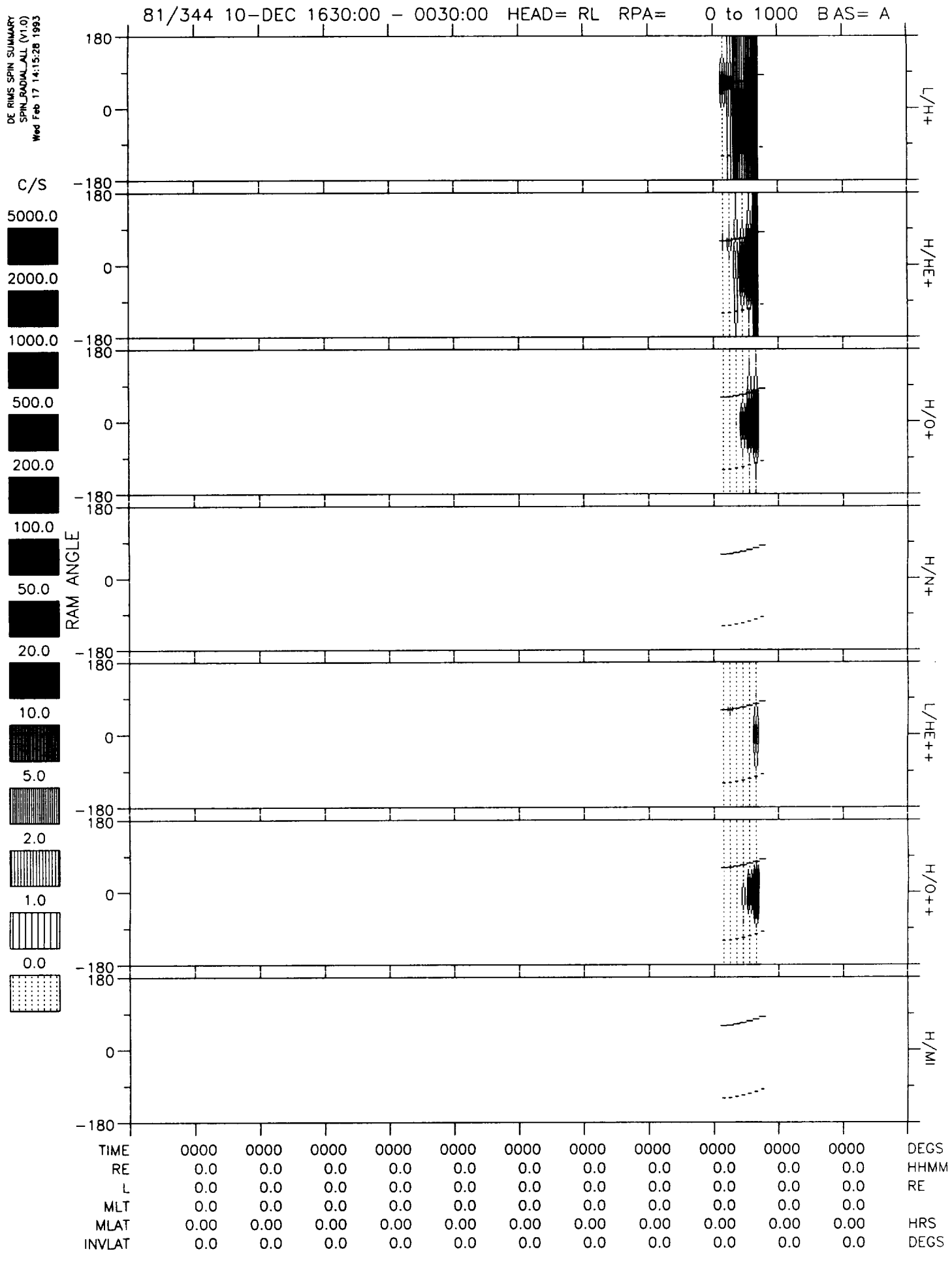

81/343 09-DEC 0630:00 - 1430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 13:51:34 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 1030 1110 1150 1230 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.5 4.0 3.3 2.1 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 -0.0 -0.0 25.4 3.5 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 5.2 19.9 18.8 18.3 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 83.58 83.57 67.63 37.36 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 -0.0 -0.0 78.5 57.8 0.0 0.0 DEGS

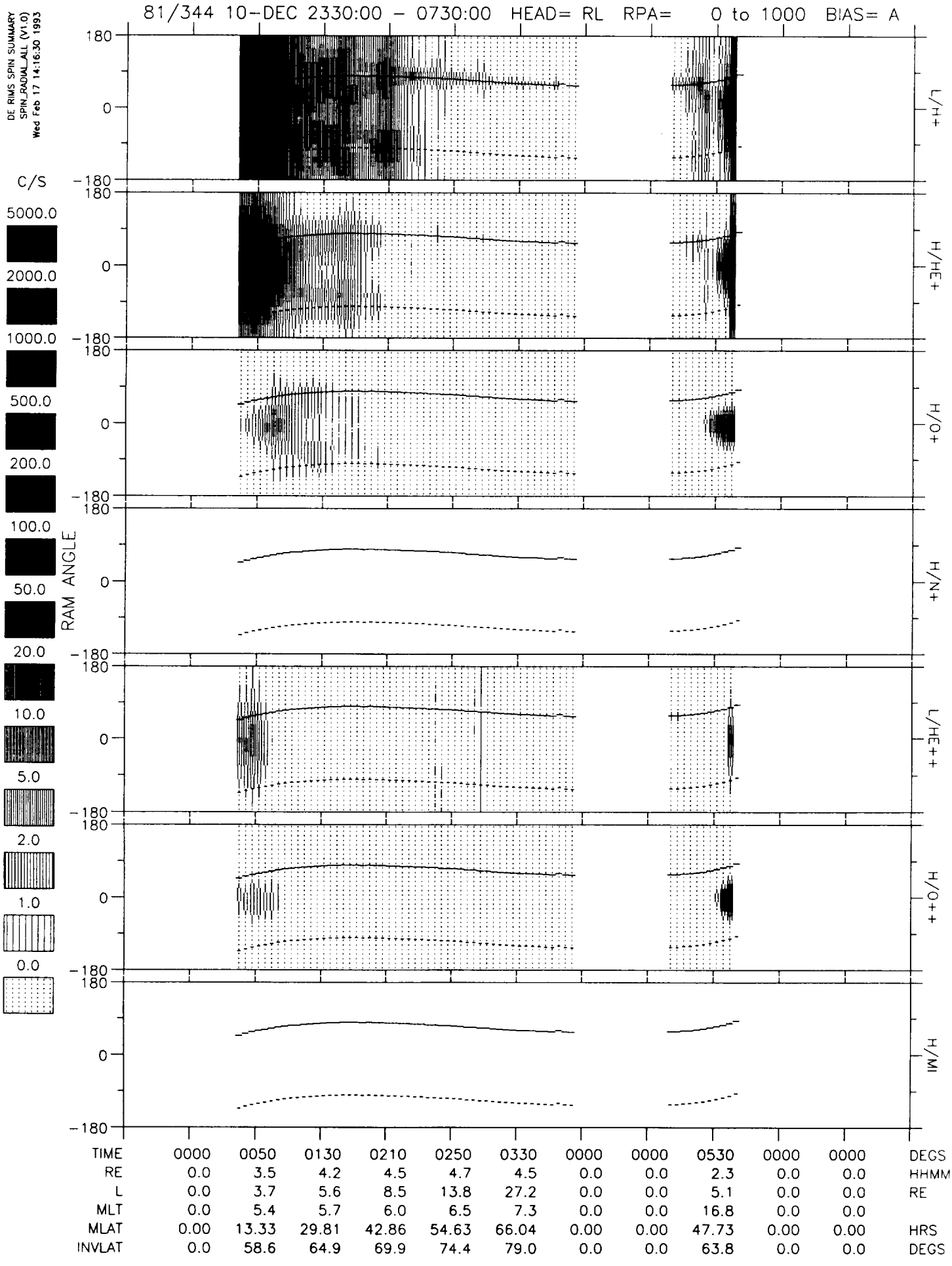

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 14:08:59 1993
81/343 09-DEC 1315:00 - 2115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

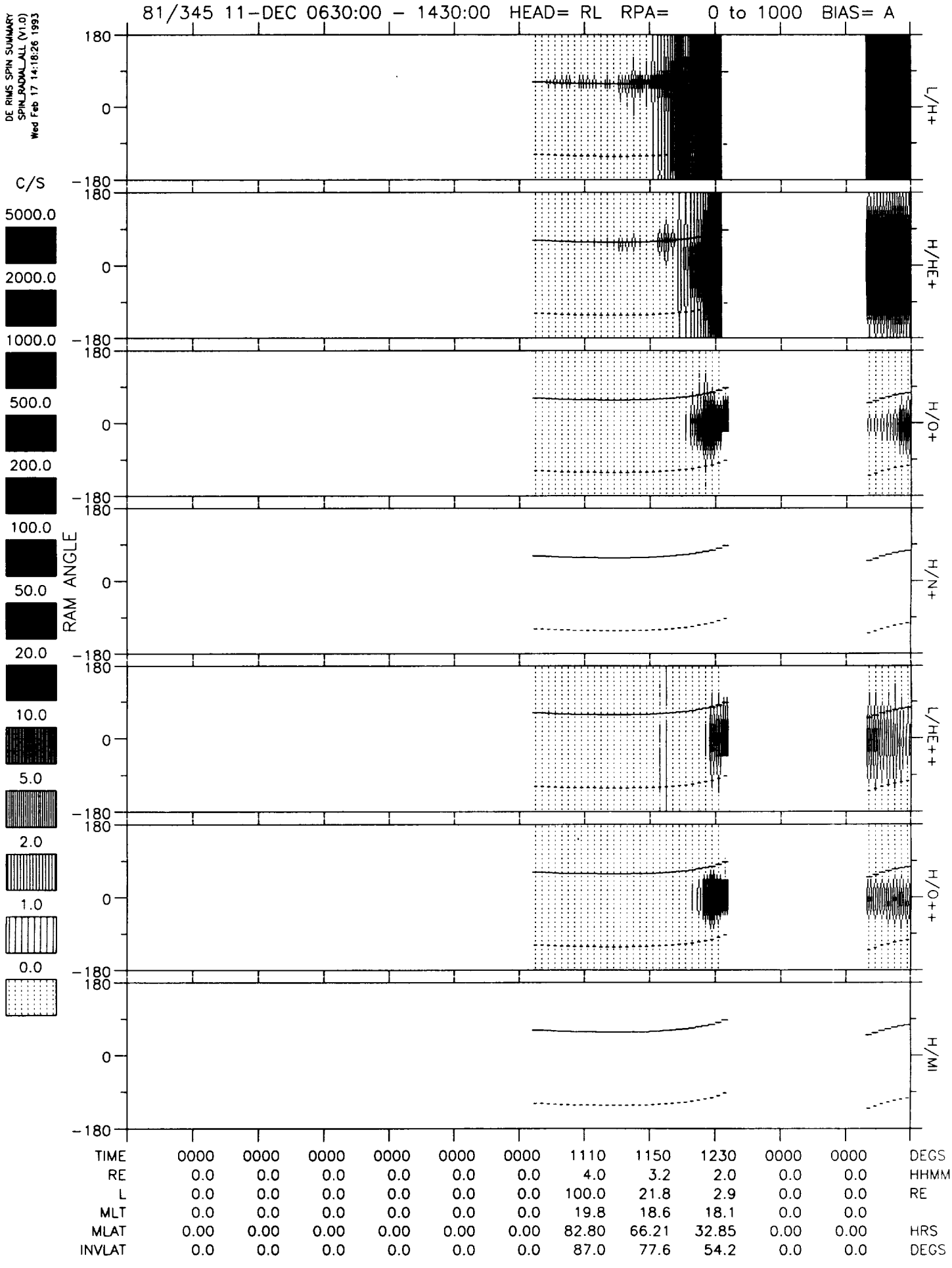

81/343 09-DEC 2000:00 - 0400:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 14:10:08 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M
TIME 0000 2120 2200 2240 2320 0000 0040 0120 0200 0240 0000 DEGS
RE 0.0 3.4 4.1 4.5 4.7 4.6 4.2 3.5 2.5 1.3 0.0 HHMM
L 0.0 3.4 4.9 7.1 10.5 17.5 40.7 -0.0 12.8 1.3 0.0 RE
MLT 0.0 5.3 5.3 5.4 5.6 6.0 6.8 10.6 16.0 17.4 0.0
MLAT 0.00 7.91 23.96 36.30 47.30 58.37 70.31 81.09 63.57 -0.54 0.00 HRS
INVLAT 0.0 57.0 63.2 68.0 72.0 76.2 81.0 -0.0 73.7 27.7 0.0 DEGS

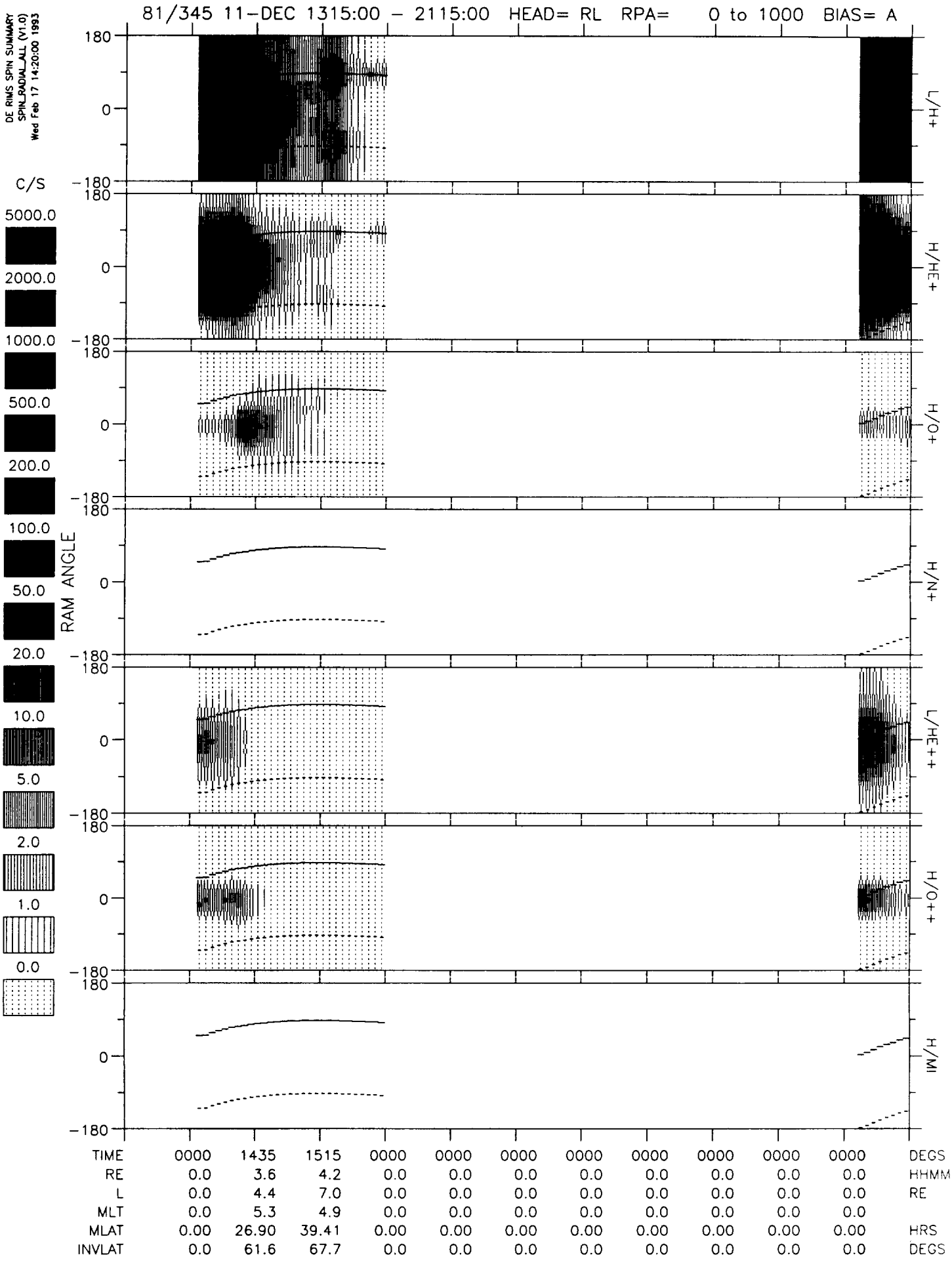

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 14:12:27 1993
81/344 10-DEC 0300:00 - 1100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/N!
TIME 0000 0000 0000 0000 0000 0000 0000 0820 0900 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.3 2.2 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 30.2 3.9 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 17.0 17.7 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 69.15 39.19 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 79.5 59.4 0.0 0.0 DEGS

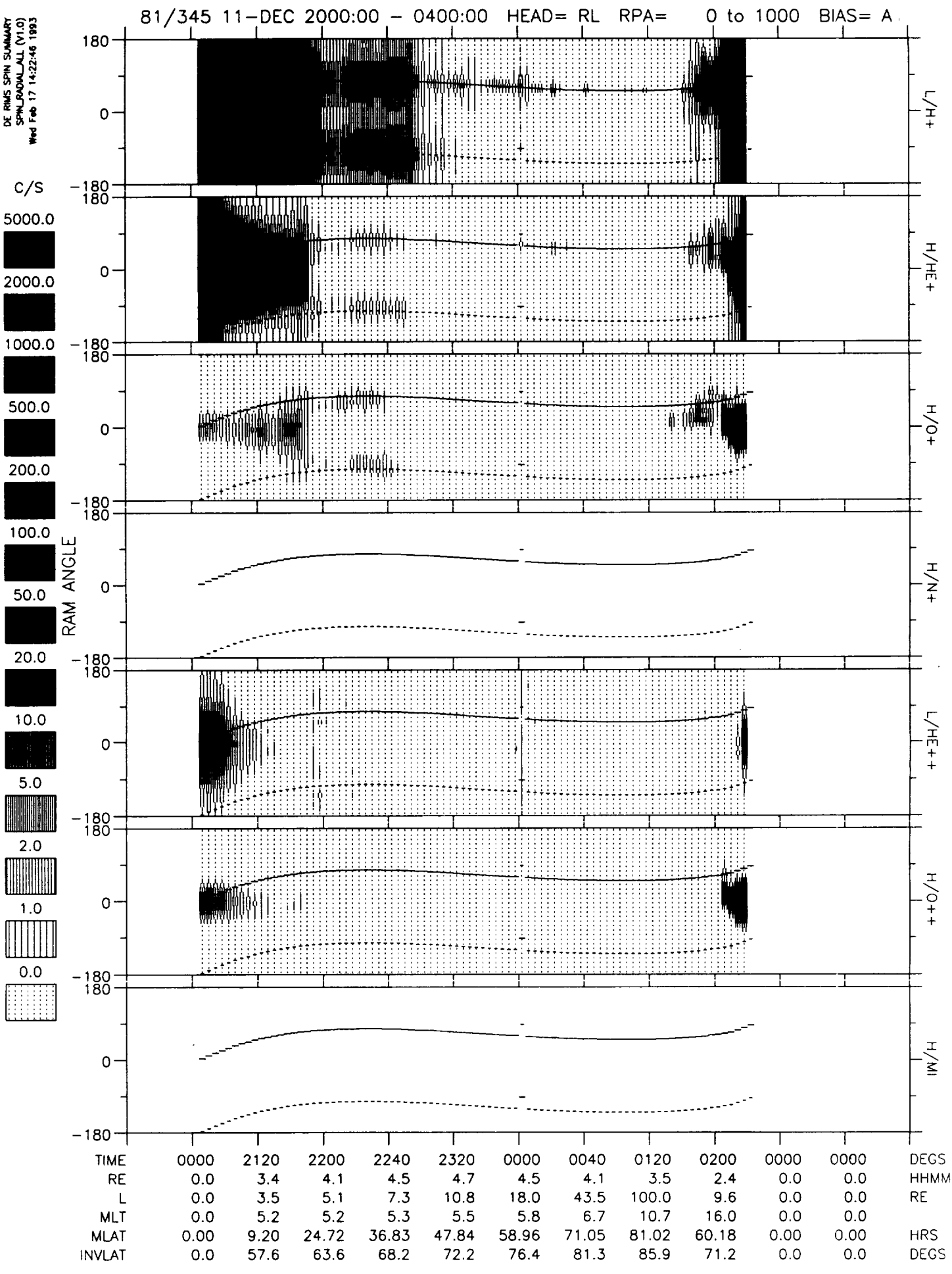

81/344 10-DEC 1015:00 - 1815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 14:13:51 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 1255 1335 1415 1455 1535 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 4.7 4.6 4.3 3.7 2.7 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 23.6 46.7 100.0 96.9 11.8 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 4.7 3.8 1.9 21.8 19.1 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 63.68 71.48 78.00 77.69 61.66 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 78.1 81.6 84.7 84.2 73.0 0.0 0.0 0.0 DEGS

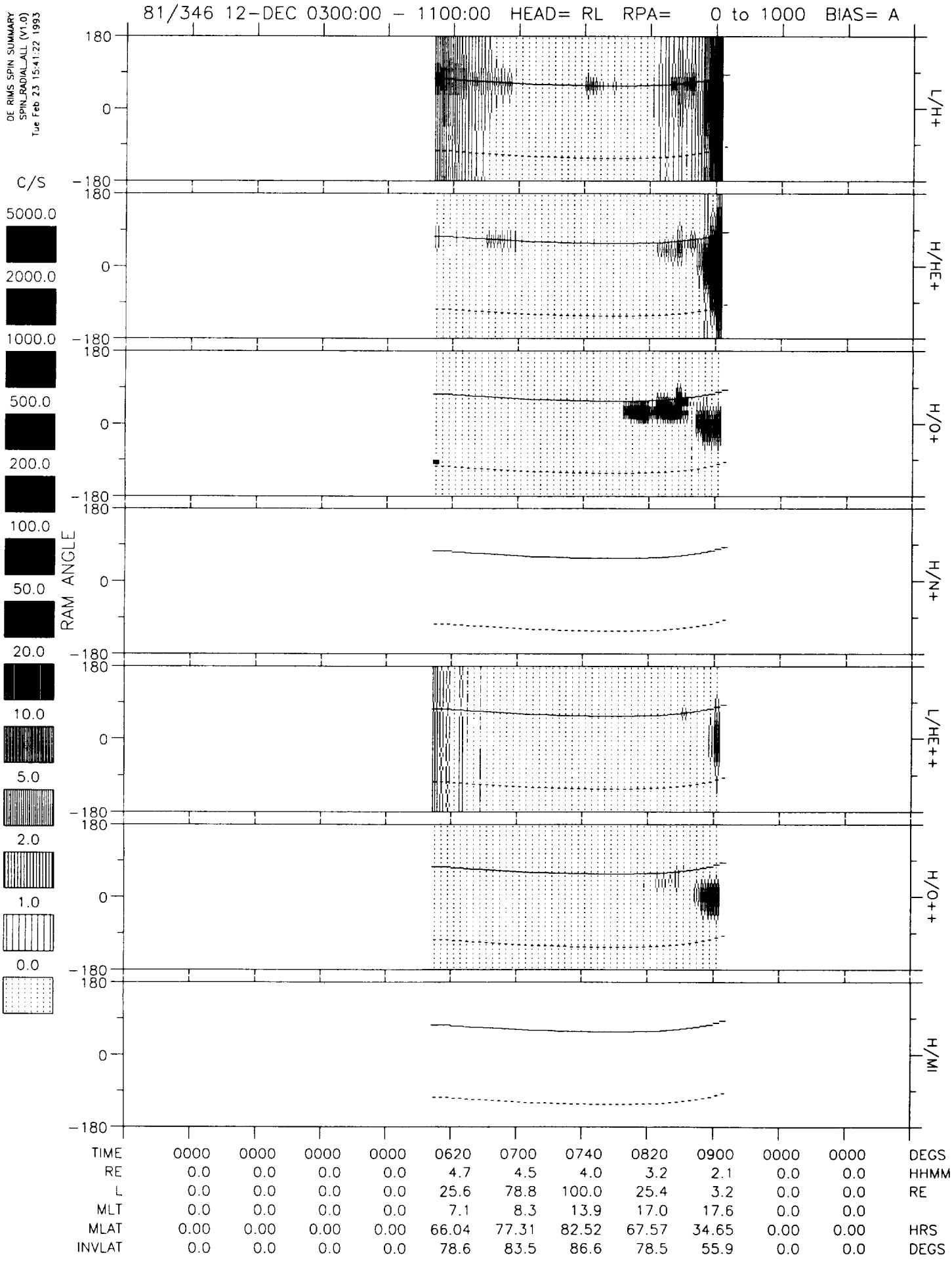

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 14:15:28 1993
81/344 10-DEC 1630:00 - 0030:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

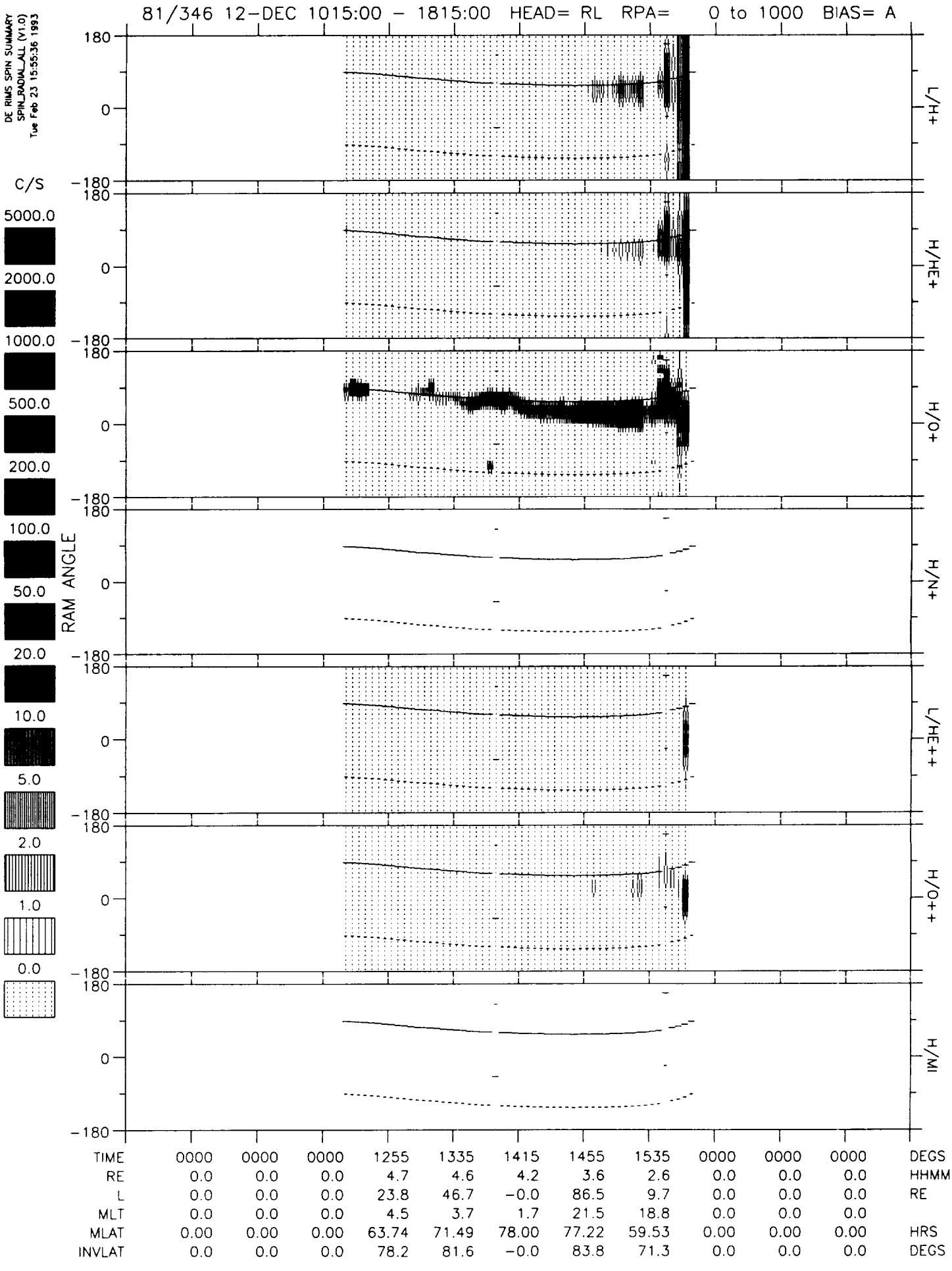

81/344 10-DEC 2330:00 - 0730:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 14:16:30 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0050 0130 0210 0250 0330 0000 0000 0530 0000 0000 DEGS
RE 0.0 3.5 4.2 4.5 4.7 4.5 0.0 0.0 2.3 0.0 0.0 HHMM
L 0.0 3.7 5.6 8.5 13.8 27.2 0.0 0.0 5.1 0.0 0.0 RE
MLT 0.0 5.4 5.7 6.0 6.5 7.3 0.0 0.0 16.8 0.0 0.0
MLAT 0.00 13.33 29.81 42.86 54.63 66.04 0.00 0.00 47.73 0.00 0.00 HRS
INVLAT 0.0 58.6 64.9 69.9 74.4 79.0 0.0 0.0 63.8 0.0 0.0 DEGS

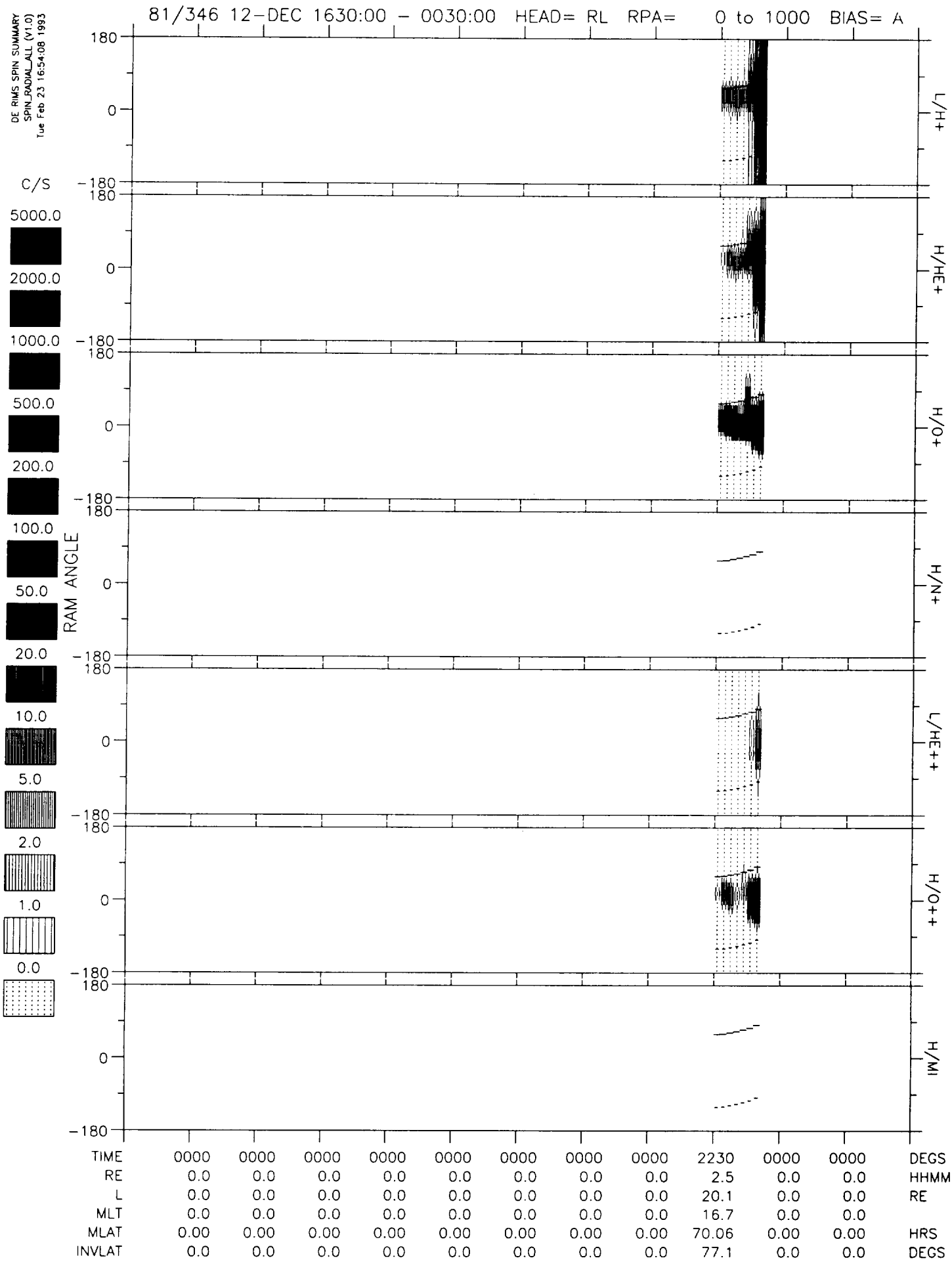

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 14:18:26 1993
81/345 11-DEC 0630:00 - 1430:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 1110 1150 1230 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 4.0 3.2 2.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 100.0 21.8 2.9 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 19.8 18.6 18.1 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 82.80 66.21 32.85 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 87.0 77.6 54.2 0.0 0.0 DEGS

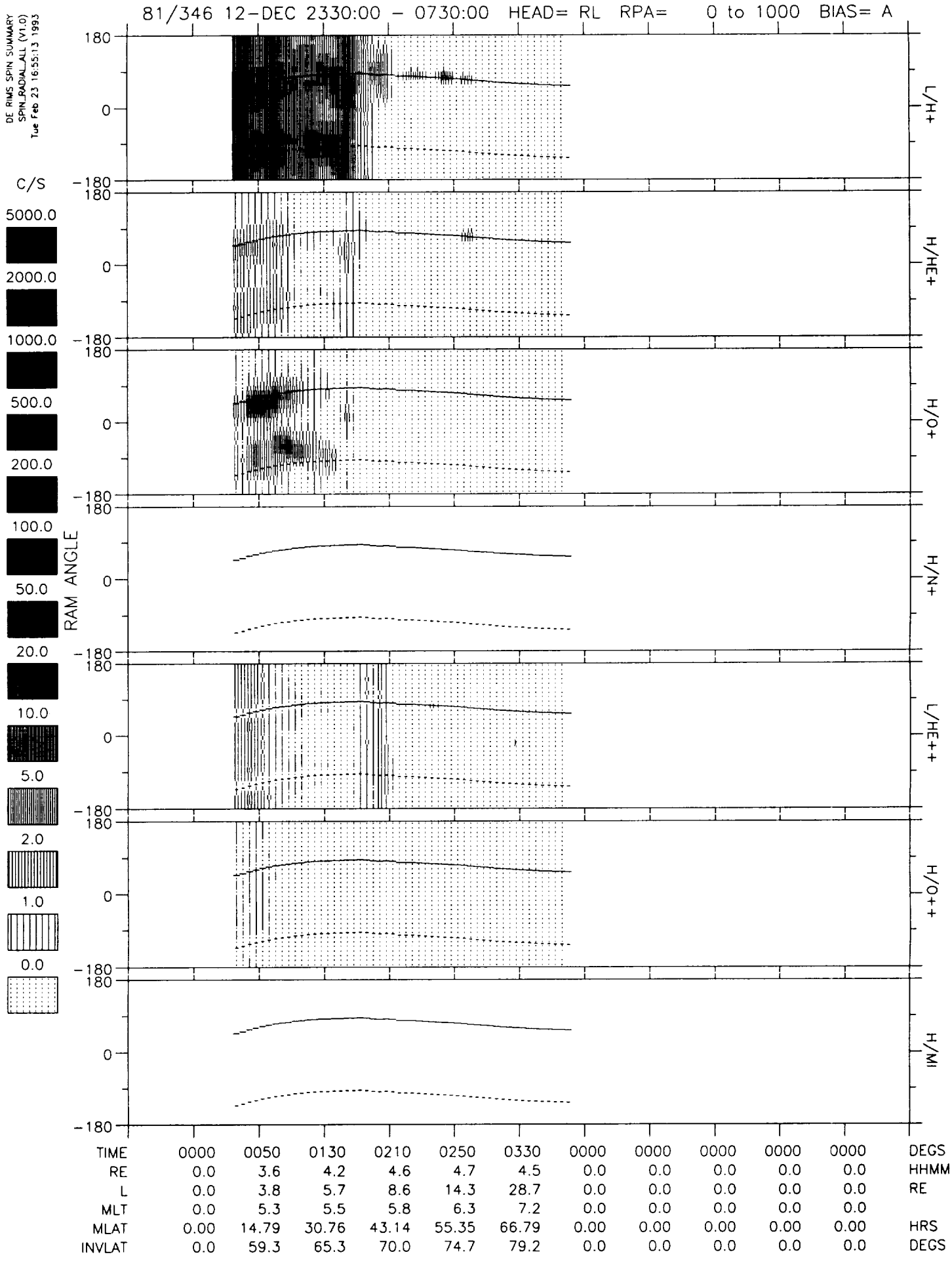

81/345 11-DEC 1315:00 - 2115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 14:20:00 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1435 1515 0000 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 3.6 4.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 4.4 7.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 5.3 4.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 26.90 39.41 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 61.6 67.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

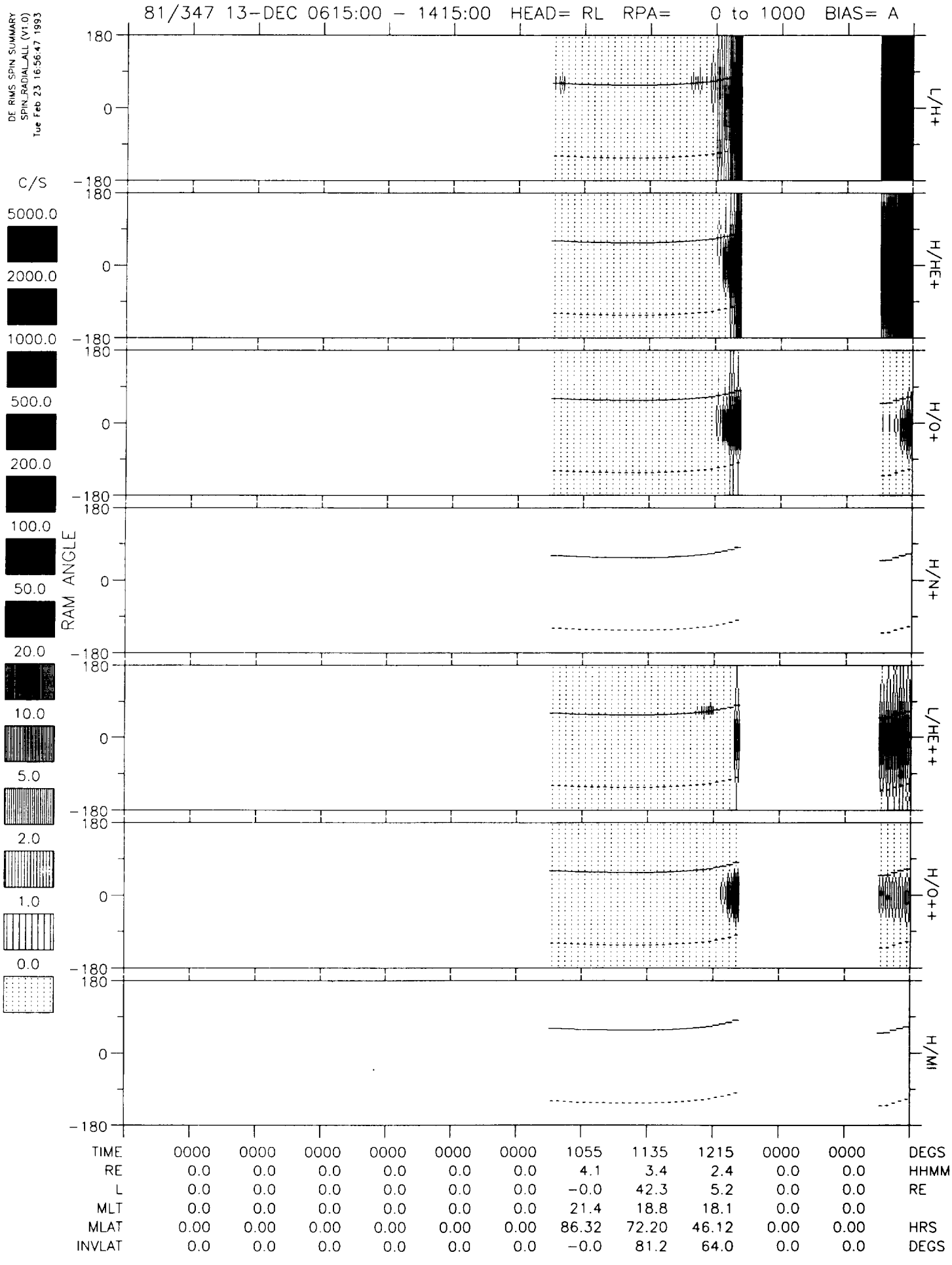

81/345 11-DEC 2000:00 - 0400:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Wed Feb 17 14:22:46 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 2120 2200 2240 2320 0000 0040 0120 0200 0000 0000 DEGS
RE 0.0 3.4 4.1 4.5 4.7 4.5 4.1 3.5 2.4 0.0 0.0 HHMM
L 0.0 3.5 5.1 7.3 10.8 18.0 43.5 100.0 9.6 0.0 0.0 RE
MLT 0.0 5.2 5.2 5.3 5.5 5.8 6.7 10.7 16.0 0.0 0.0
MLAT 0.00 9.20 24.72 36.83 47.84 58.96 71.05 81.02 60.18 0.00 0.00 HRS
INVLAT 0.0 57.6 63.6 68.2 72.2 76.4 81.3 85.9 71.2 0.0 0.0 DEGS

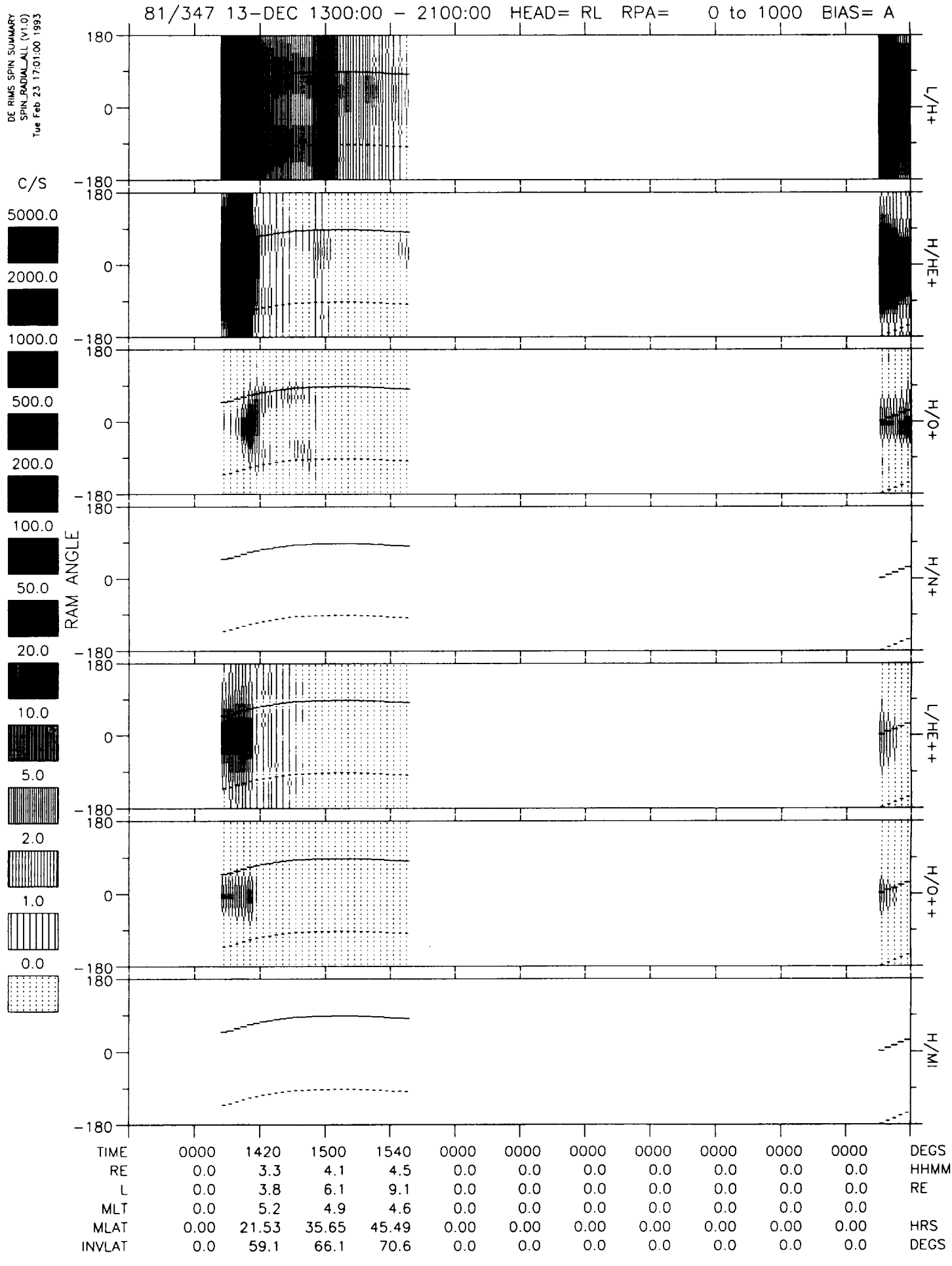

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 15:41:22 1993
81/346 12-DEC 0300:00 - 1100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0620 0700 0740 0820 0900 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.7 4.5 4.0 3.2 2.1 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 25.6 78.8 100.0 25.4 3.2 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 7.1 8.3 13.9 17.0 17.6 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 66.04 77.31 82.52 67.57 34.65 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 78.6 83.5 86.6 78.5 55.9 0.0 0.0 DEGS

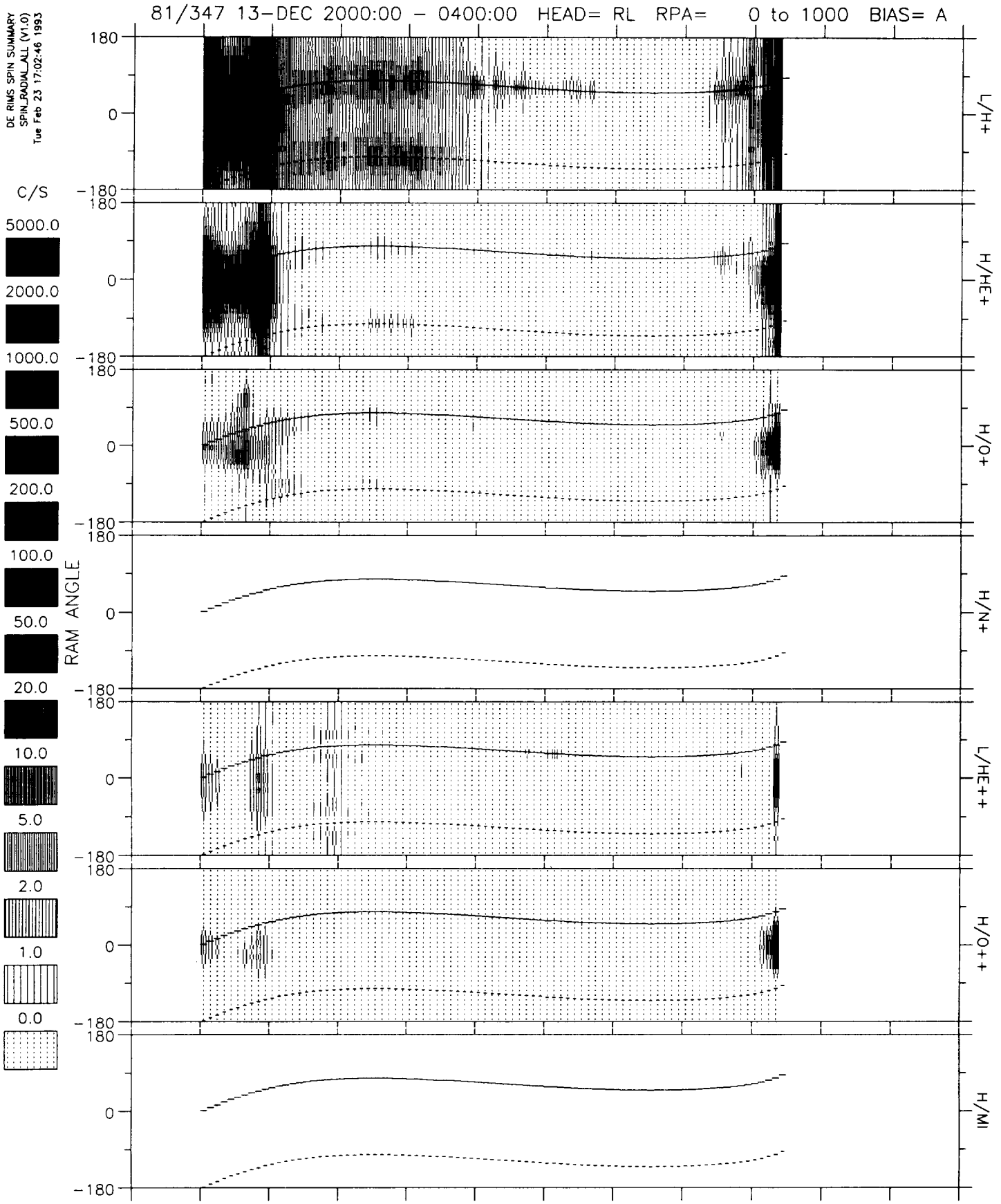

81/346 12-DEC 1015:00 - 1815:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 15:55:36 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 1255 1335 1415 1455 1535 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 4.7 4.6 4.2 3.6 2.6 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 23.8 46.7 -0.0 86.5 9.7 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 4.5 3.7 1.7 21.5 18.8 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 63.74 71.49 78.00 77.22 59.53 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 78.2 81.6 -0.0 83.8 71.3 0.0 0.0 0.0 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 16:54:08 1993
81/346 12-DEC 1630:00 - 0030:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 2230 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.5 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 20.1 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 16.7 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 70.06 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 77.1 0.0 0.0 DEGS

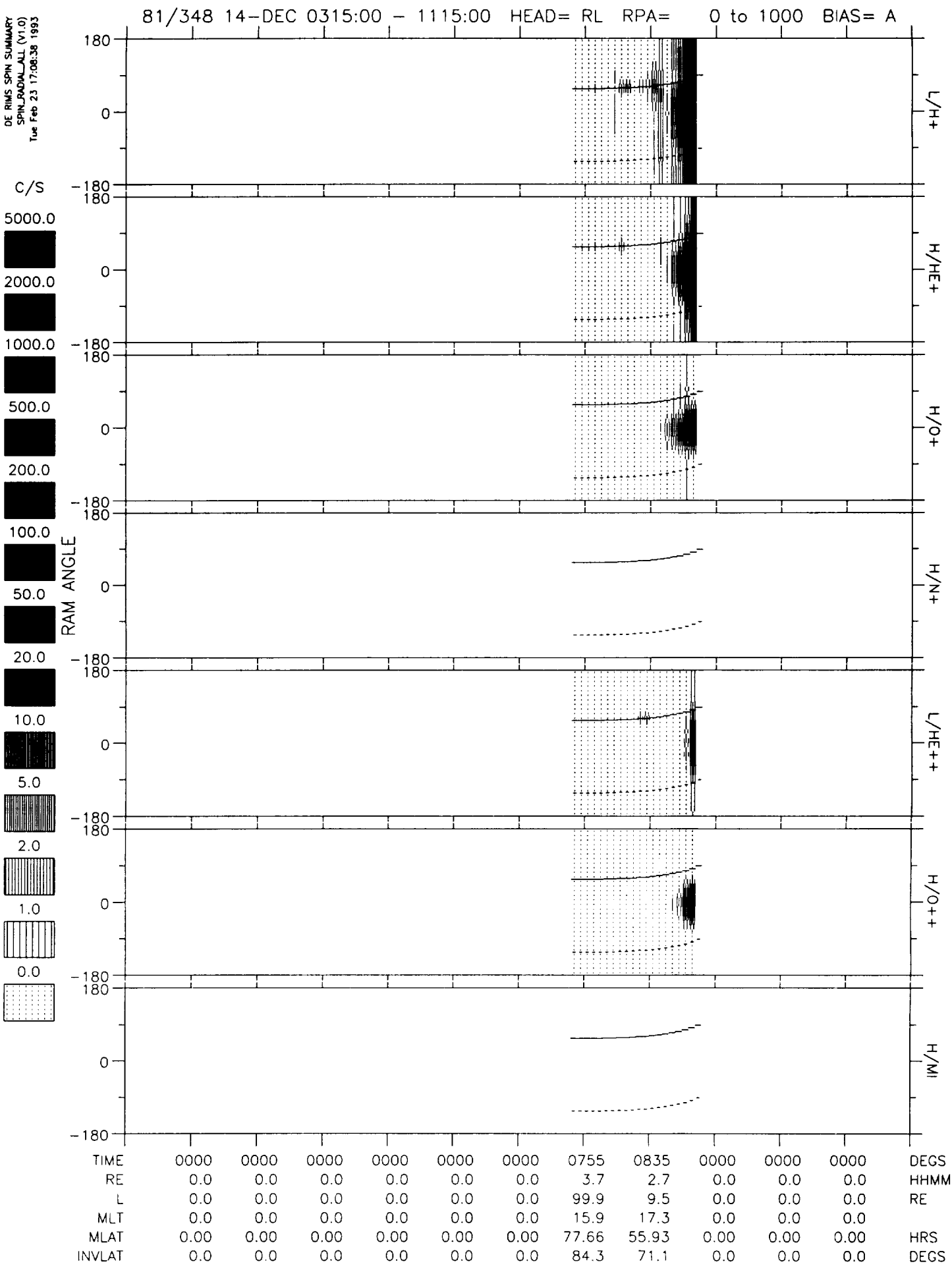

81/346 12-DEC 2330:00 - 0730:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 16:55:13 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0050 0130 0210 0250 0330 0000 0000 0000 0000 0000 DEGS
RE 0.0 3.6 4.2 4.6 4.7 4.5 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 3.8 5.7 8.6 14.3 28.7 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 5.3 5.5 5.8 6.3 7.2 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 14.79 30.76 43.14 55.35 66.79 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 59.3 65.3 70.0 74.7 79.2 0.0 0.0 0.0 0.0 0.0 DEGS

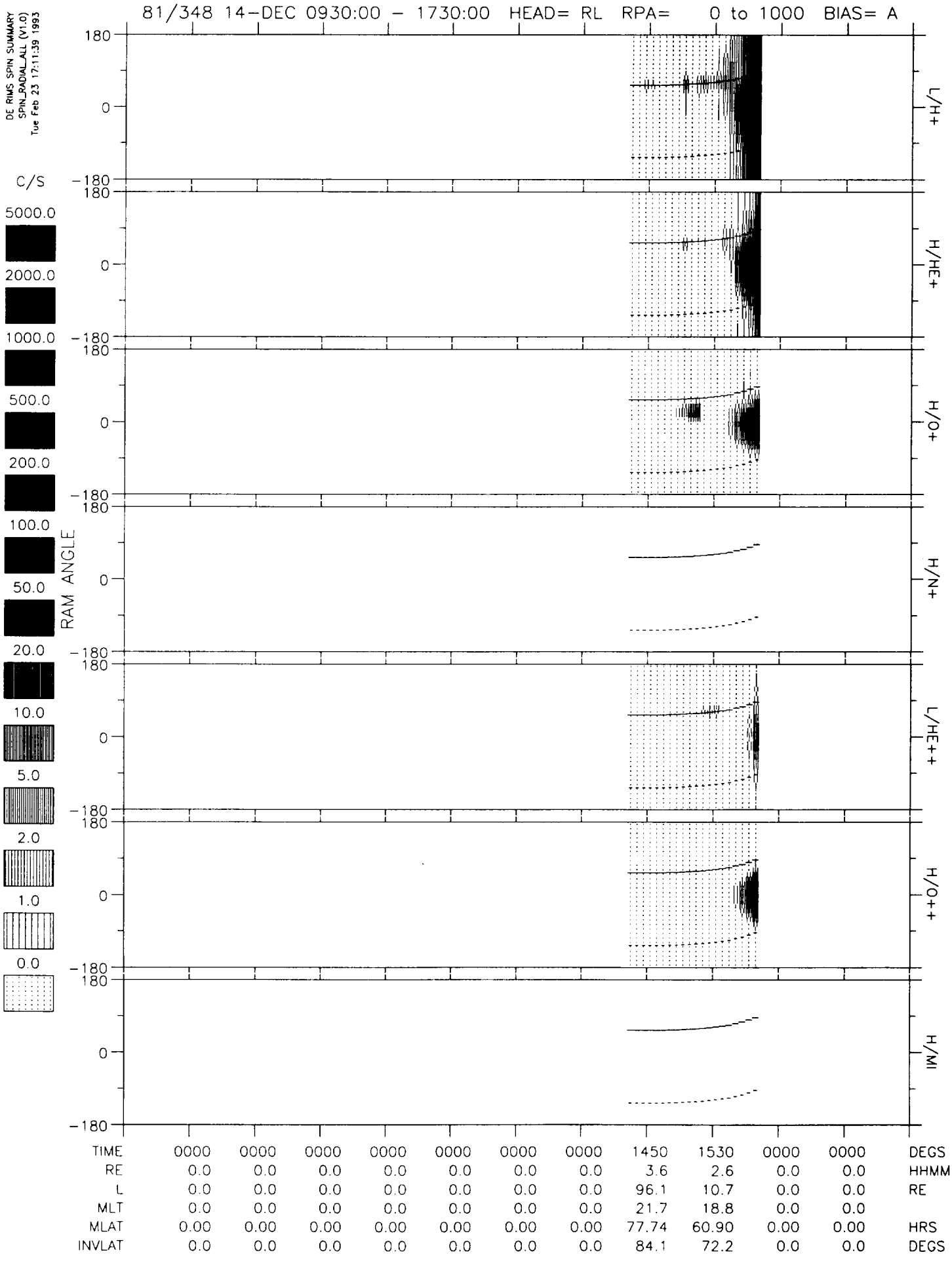

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 16:56:47 1993
81/347 13-DEC 0615:00 - 1415:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 1055 1135 1215 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 4.1 3.4 2.4 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 -0.0 42.3 5.2 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 21.4 18.8 18.1 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 86.32 72.20 46.12 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 -0.0 81.2 64.0 0.0 0.0 DEGS

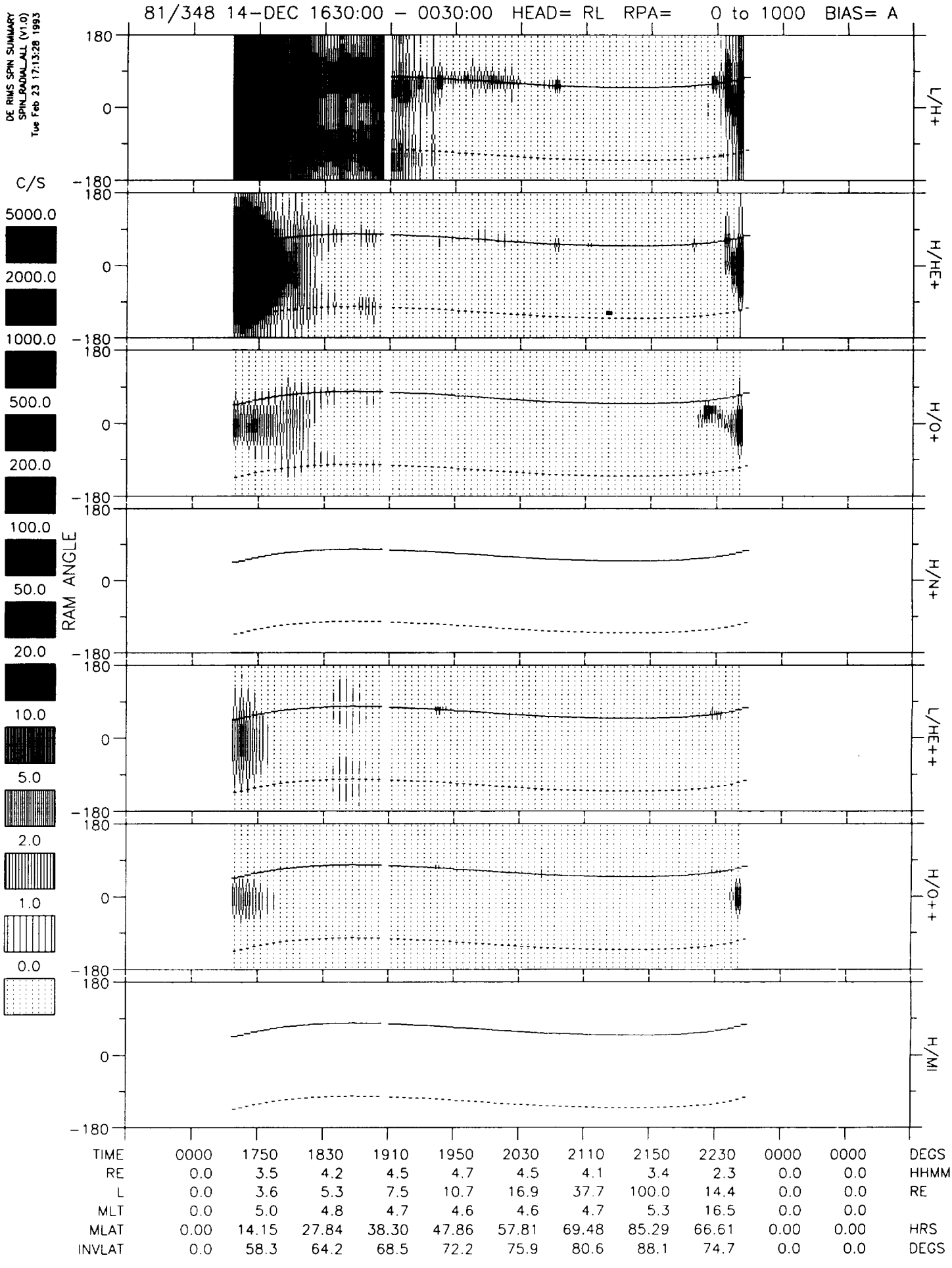

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 17:01:00 1993
81/347 13-DEC 1300:00 - 2100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1420 1500 1540 0000 0000 0000 0000 0000 0000 0000 DEGS
RE 0.0 3.3 4.1 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 HHMM
L 0.0 3.8 6.1 9.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 RE
MLT 0.0 5.2 4.9 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0
MLAT 0.00 21.53 35.65 45.49 0.00 0.00 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 0.0 59.1 66.1 70.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 DEGS

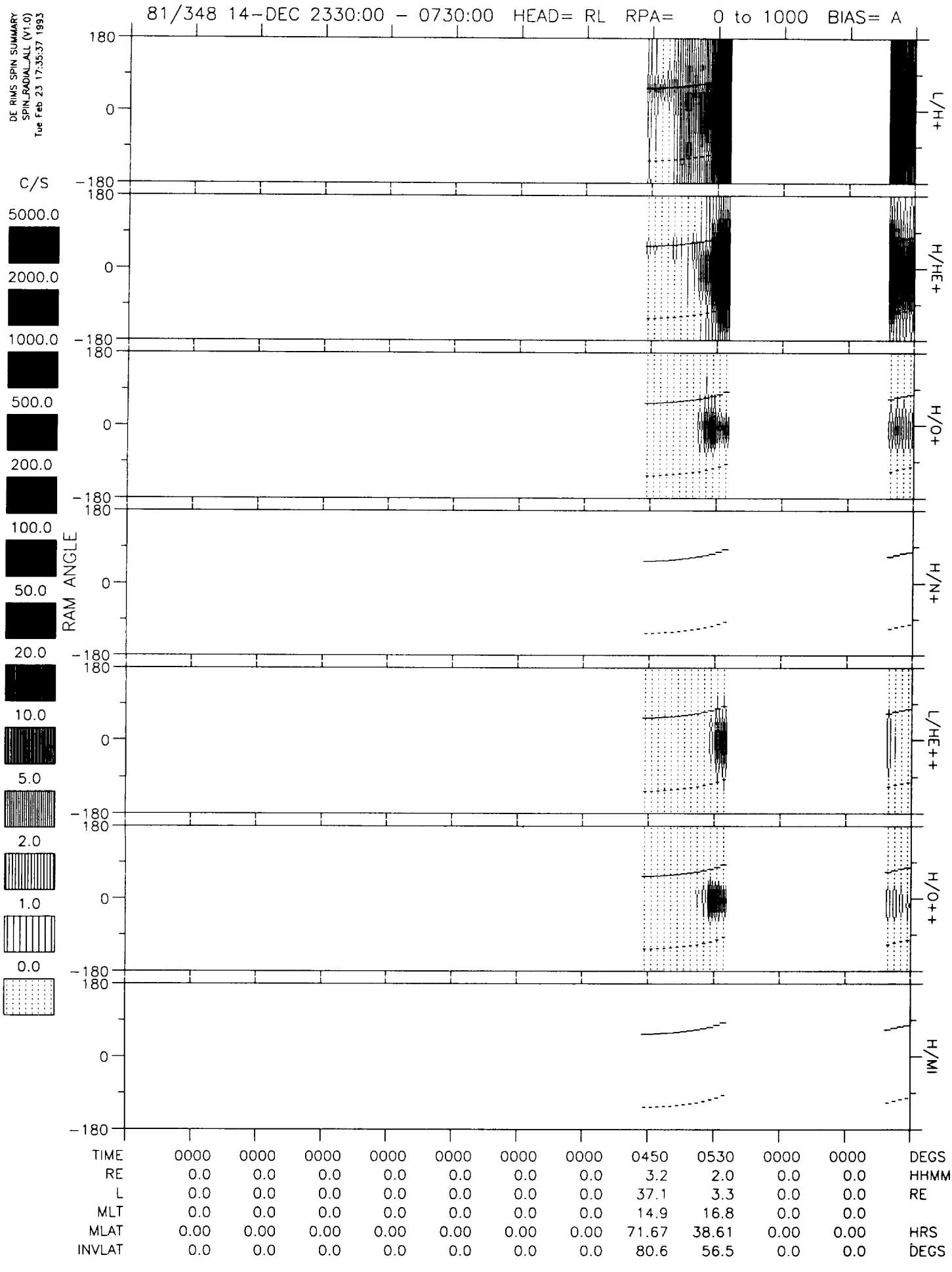


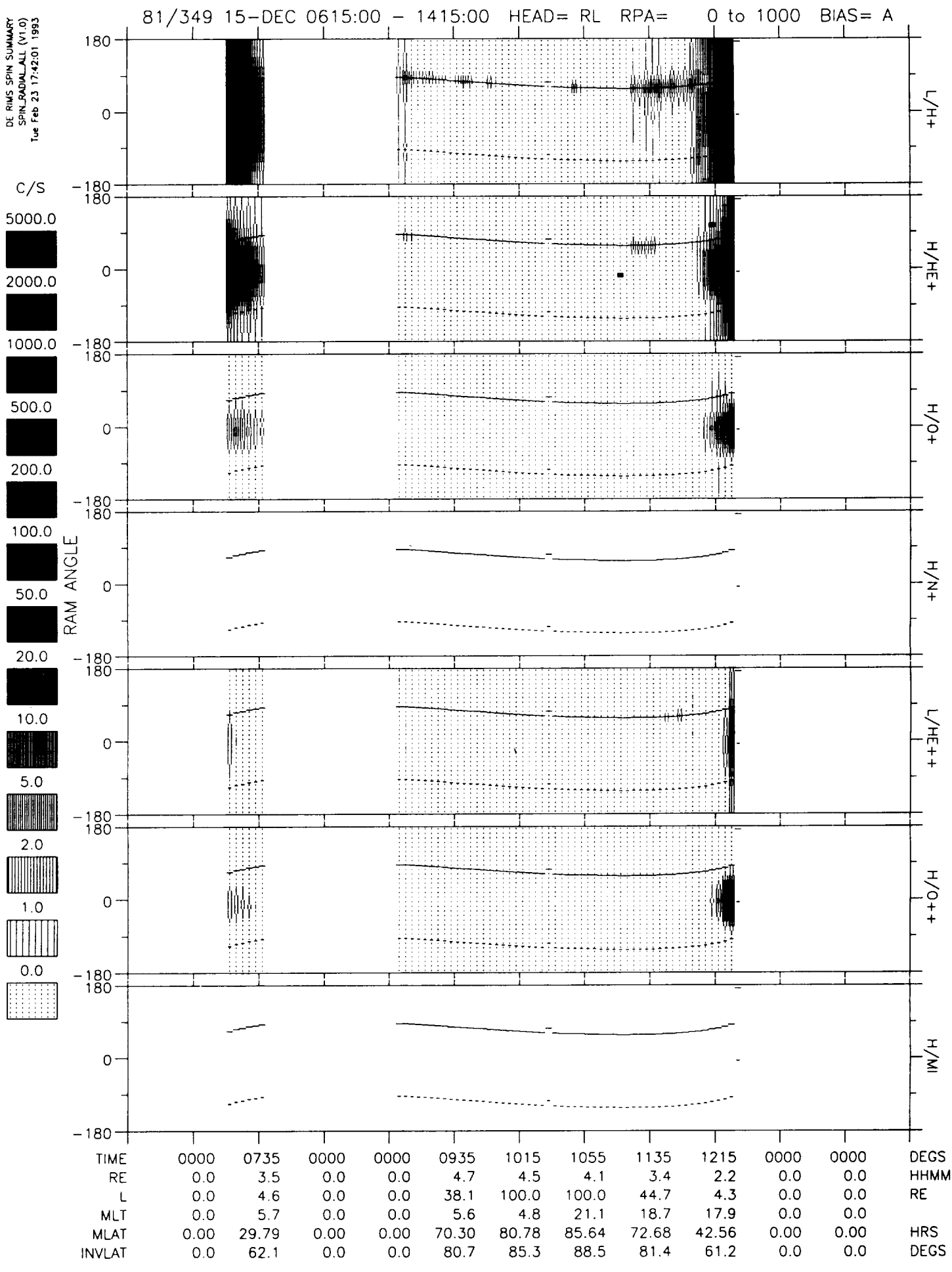
TIME	2040	2120	2200	2240	2320	0000	0040	0120	0200	0000	0000	DEGS
RE	2.5	3.5	4.2	4.6	4.7	4.5	4.1	3.4	2.3	0.0	0.0	HHMM
L	2.6	3.6	5.2	7.4	11.0	18.6	46.7	100.0	7.2	0.0	0.0	RE
MLT	5.1	5.0	5.0	5.2	5.4	5.8	6.7	11.6	16.0	0.0	0.0	
MLAT	*****	10.42	25.43	37.37	48.37	59.58	71.83	80.72	56.30	0.00	0.00	HRS
INVLAT	51.5	58.2	64.0	68.4	72.4	76.6	81.6	85.6	68.2	0.0	0.0	DEGS

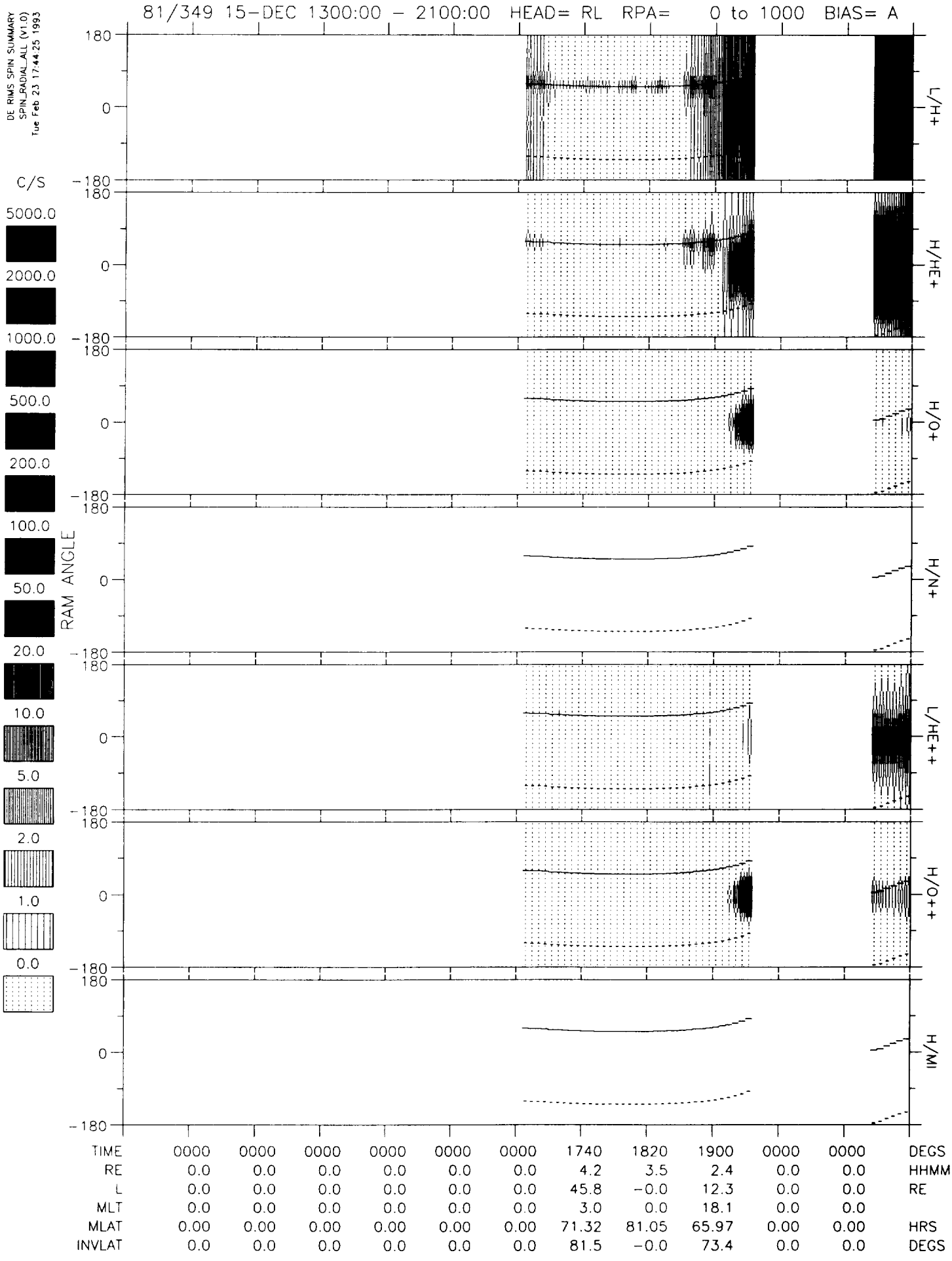

81/348 14-DEC 0315:00 - 1115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 17:08:38 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0755 0835 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 3.7 2.7 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 99.9 9.5 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 15.9 17.3 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 77.66 55.93 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 84.3 71.1 0.0 0.0 0.0 DEGS

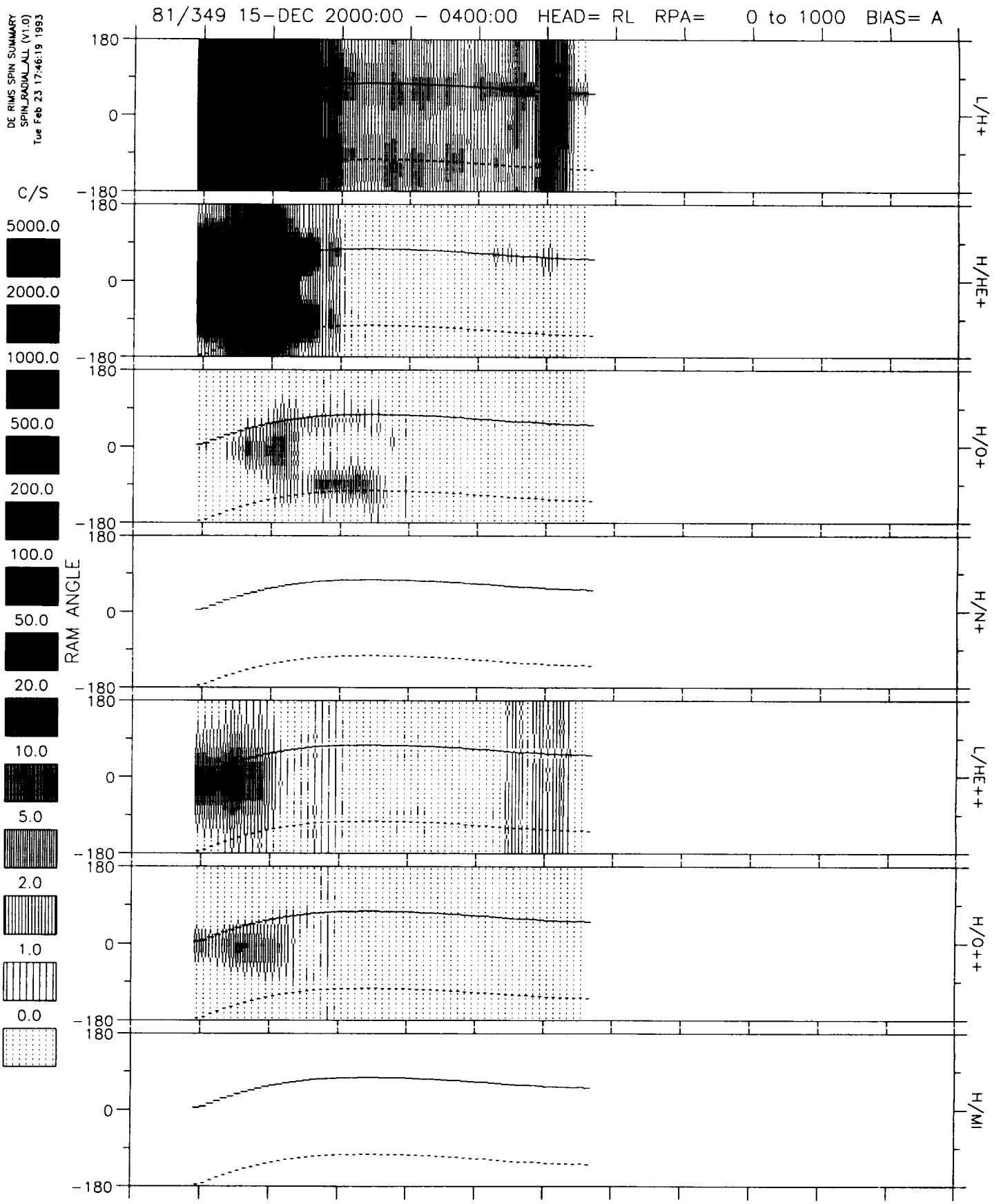

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 17:11:39 1993
81/348 14-DEC 0930:00 - 1730:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 1450 1530 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.6 2.6 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 96.1 10.7 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 21.7 18.8 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 77.74 60.90 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 84.1 72.2 0.0 0.0 DEGS

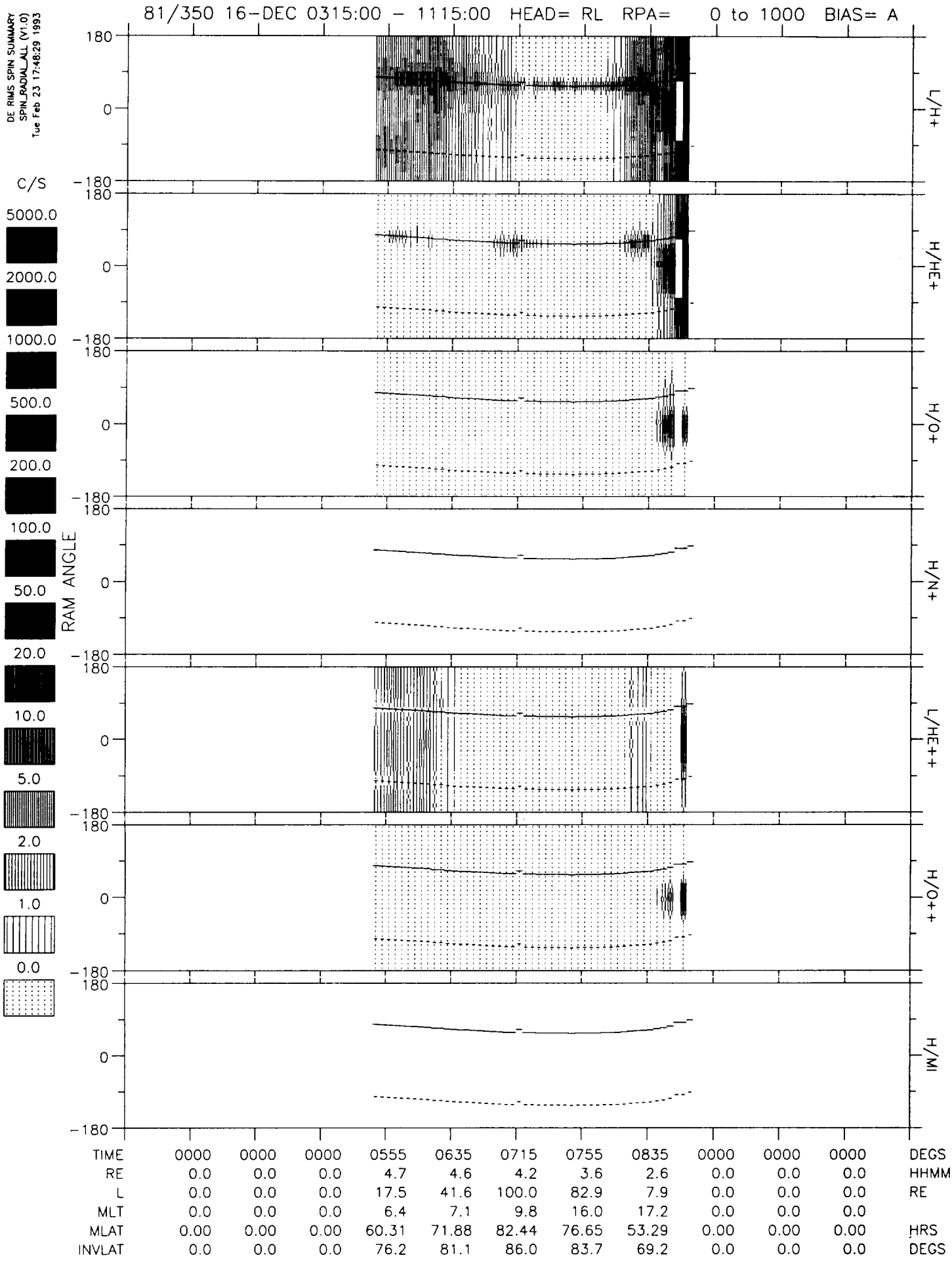

81/348 14-DEC 1630:00 - 0030:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 17:13:28 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1750 1830 1910 1950 2030 2110 2150 2230 0000 0000 DEGS
RE 0.0 3.5 4.2 4.5 4.7 4.5 4.1 3.4 2.3 0.0 0.0 HHMM
L 0.0 3.6 5.3 7.5 10.7 16.9 37.7 100.0 14.4 0.0 0.0 RE
MLT 0.0 5.0 4.8 4.7 4.6 4.6 4.7 5.3 16.5 0.0 0.0
MLAT 0.00 14.15 27.84 38.30 47.86 57.81 69.48 85.29 66.61 0.00 0.00 HRS
INVLAT 0.0 58.3 64.2 68.5 72.2 75.9 80.6 88.1 74.7 0.0 0.0 DEGS

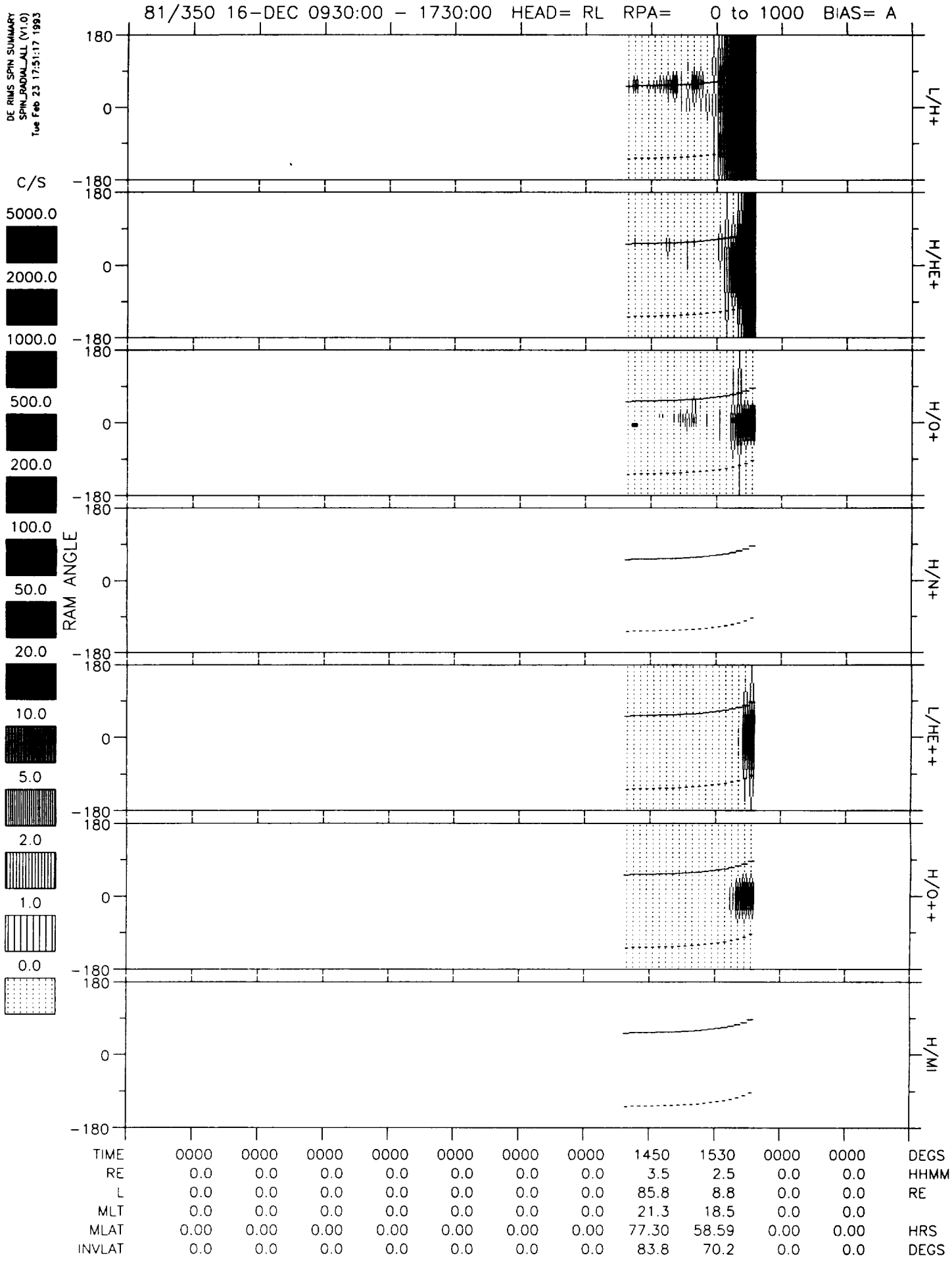

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 17:35:37 1993
81/348 14-DEC 2330:00 - 0730:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0450 0530 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.2 2.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 37.1 3.3 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 14.9 16.8 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 71.67 38.61 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 80.6 56.5 0.0 0.0 DEGS

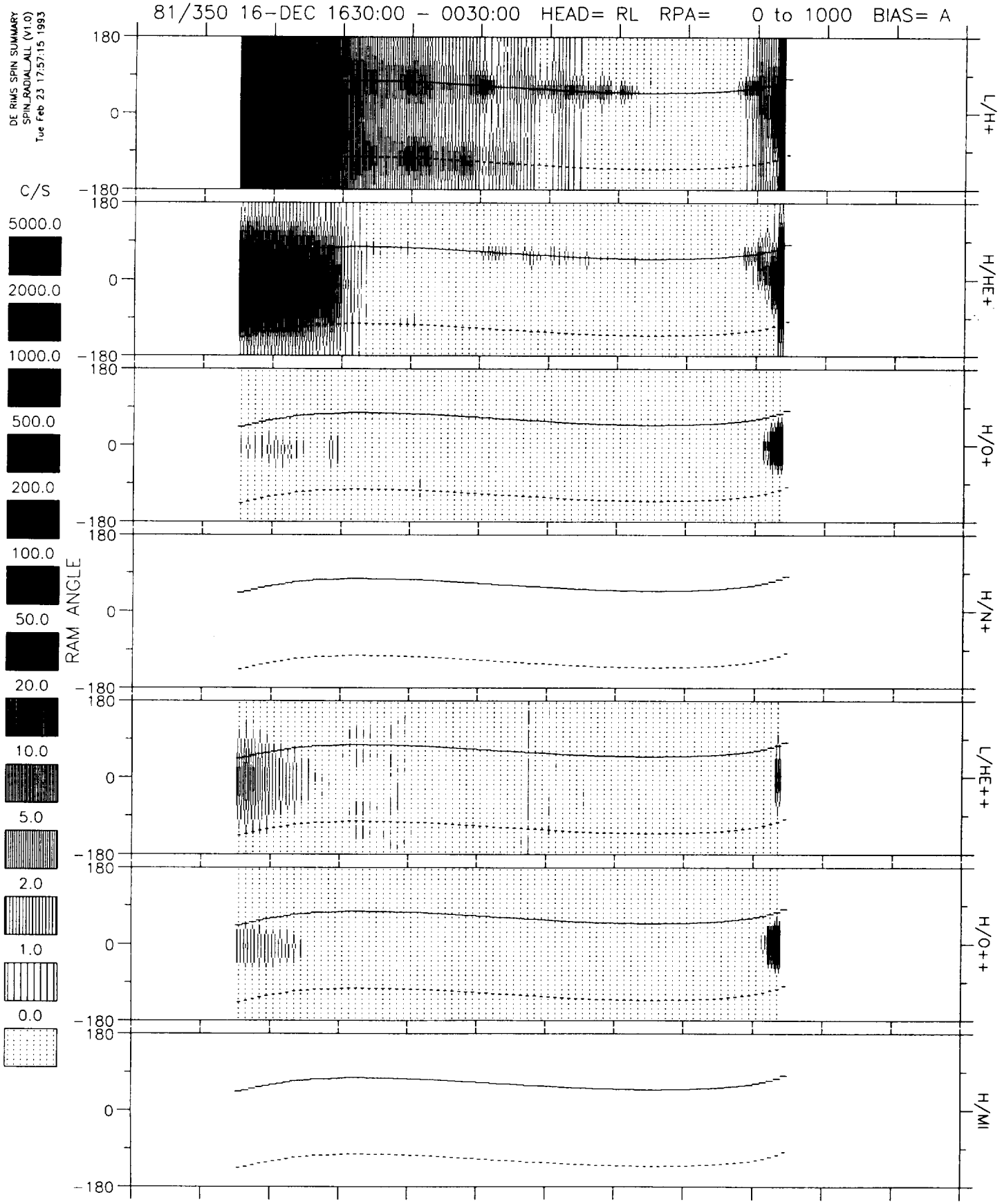

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 17:42:01 1993
81/349 15-DEC 0615:00 - 1415:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0735 0000 0000 0935 1015 1055 1135 1215 0000 0000 DEGS
RE 0.0 3.5 0.0 0.0 4.7 4.5 4.1 3.4 2.2 0.0 0.0 HHMM
L 0.0 4.6 0.0 0.0 38.1 100.0 100.0 44.7 4.3 0.0 0.0 RE
MLT 0.0 5.7 0.0 0.0 5.6 4.8 21.1 18.7 17.9 0.0 0.0
MLAT 0.00 29.79 0.00 0.00 70.30 80.78 85.64 72.68 42.56 0.00 0.00 HRS
INVLAT 0.0 62.1 0.0 0.0 80.7 85.3 88.5 81.4 61.2 0.0 0.0 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 17:44:25 1993
81/349 15-DEC 1300:00 - 2100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 1740 1820 1900 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 4.2 3.5 2.4 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 45.8 -0.0 12.3 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 3.0 0.0 18.1 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 71.32 81.05 65.97 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 81.5 -0.0 73.4 0.0 0.0 DEGS

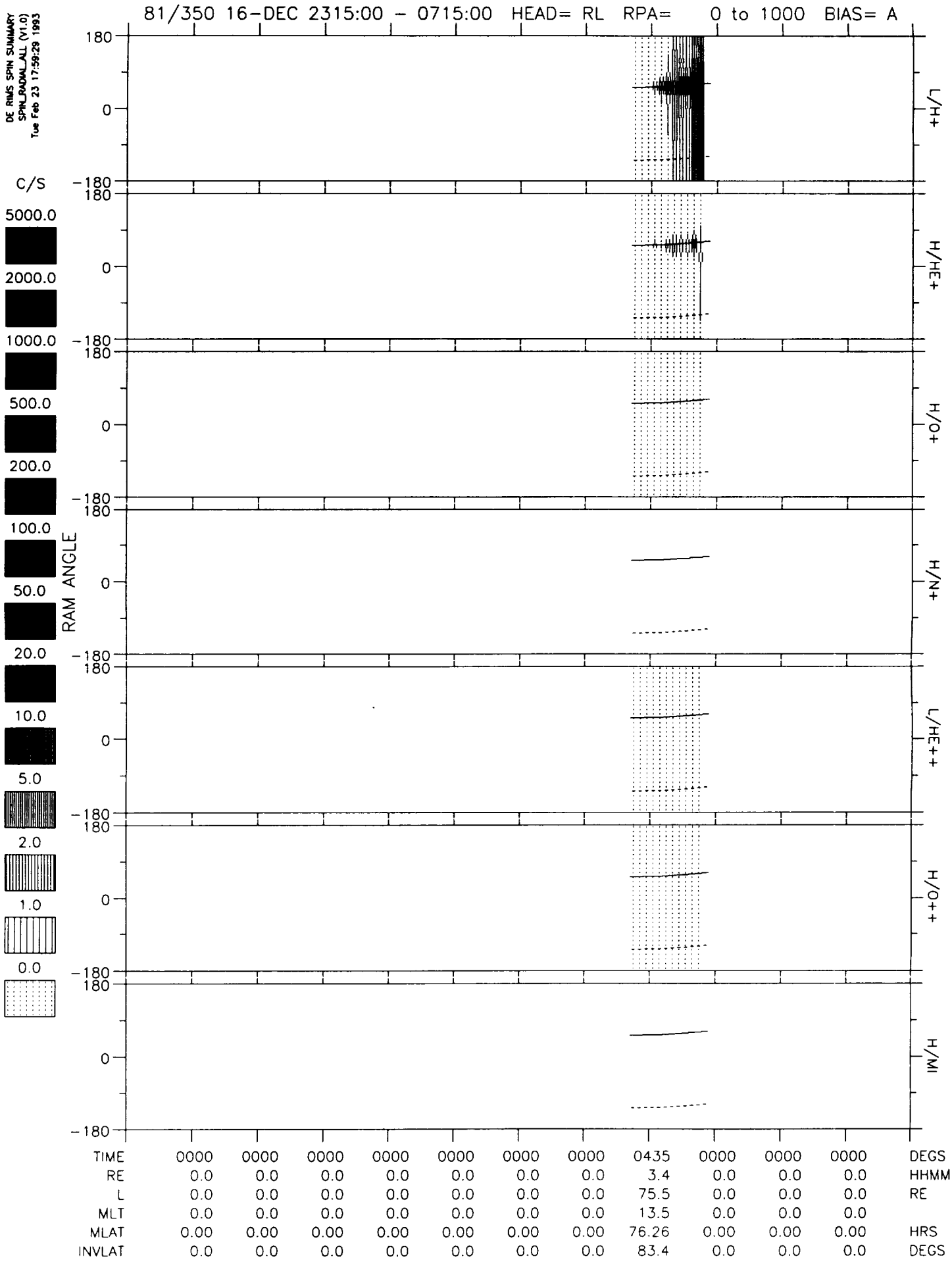

81/349 15-DEC 2000:00 – 0400:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 17:46:19 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 2040 2120 2200 2240 2320 0000 0000 0000 0000 0000 0000 DEGS
RE 2.6 3.6 4.2 4.6 4.7 4.5 0.0 0.0 0.0 0.0 0.0 HHMM
L 2.6 3.7 5.3 7.6 11.2 19.2 0.0 0.0 0.0 0.0 0.0 RE
MLT 4.9 4.9 4.9 5.0 5.2 5.7 0.0 0.0 0.0 0.0 0.0
MLAT ***** 11.59 26.13 37.92 48.92 60.23 0.00 0.00 0.00 0.00 0.00 HRS
INVLAT 52.1 58.8 64.3 68.7 72.6 76.8 0.0 0.0 0.0 0.0 0.0 DEGS

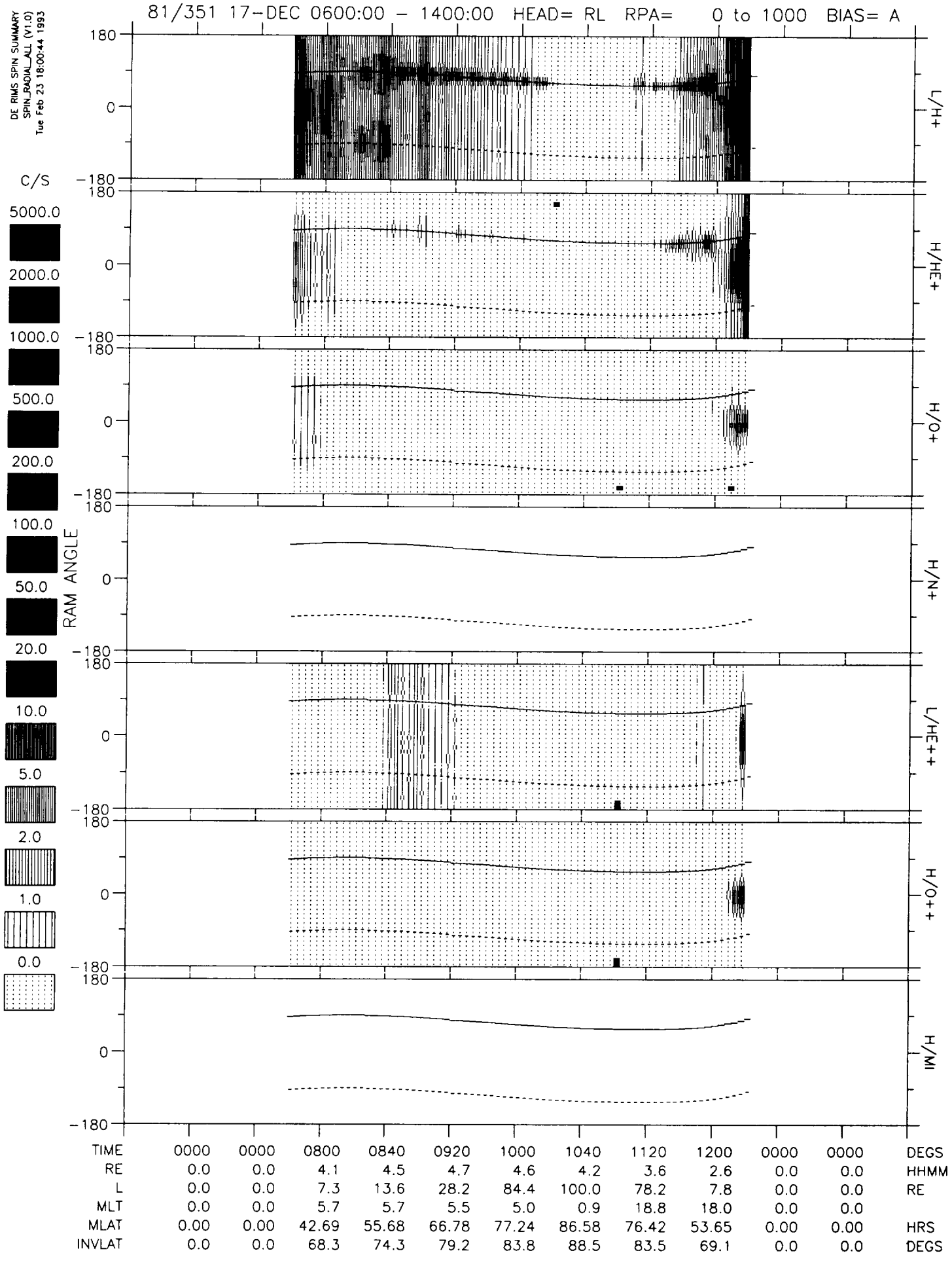

81/350 16-DEC 0315:00 - 1115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 17:48:29 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0555 0635 0715 0755 0835 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 4.7 4.6 4.2 3.6 2.6 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 17.5 41.6 100.0 82.9 7.9 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 6.4 7.1 9.8 16.0 17.2 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 60.31 71.88 82.44 76.65 53.29 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 76.2 81.1 86.0 83.7 69.2 0.0 0.0 0.0 DEGS

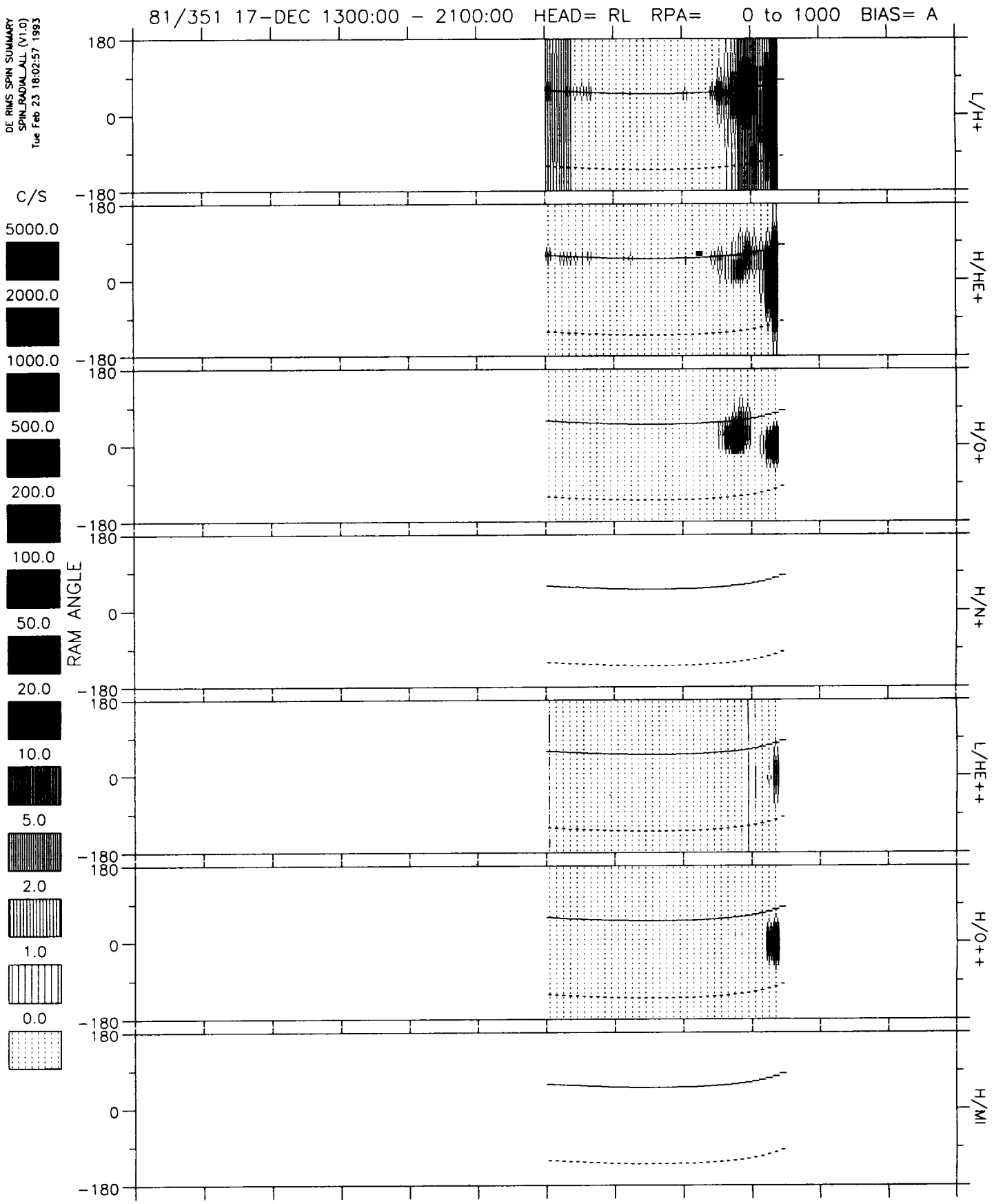

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 17:51:17 1993
81/350 16-DEC 0930:00 - 1730:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 1450 1530 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.5 2.5 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 85.8 8.8 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 21.3 18.5 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 77.30 58.59 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 83.8 70.2 0.0 0.0 DEGS

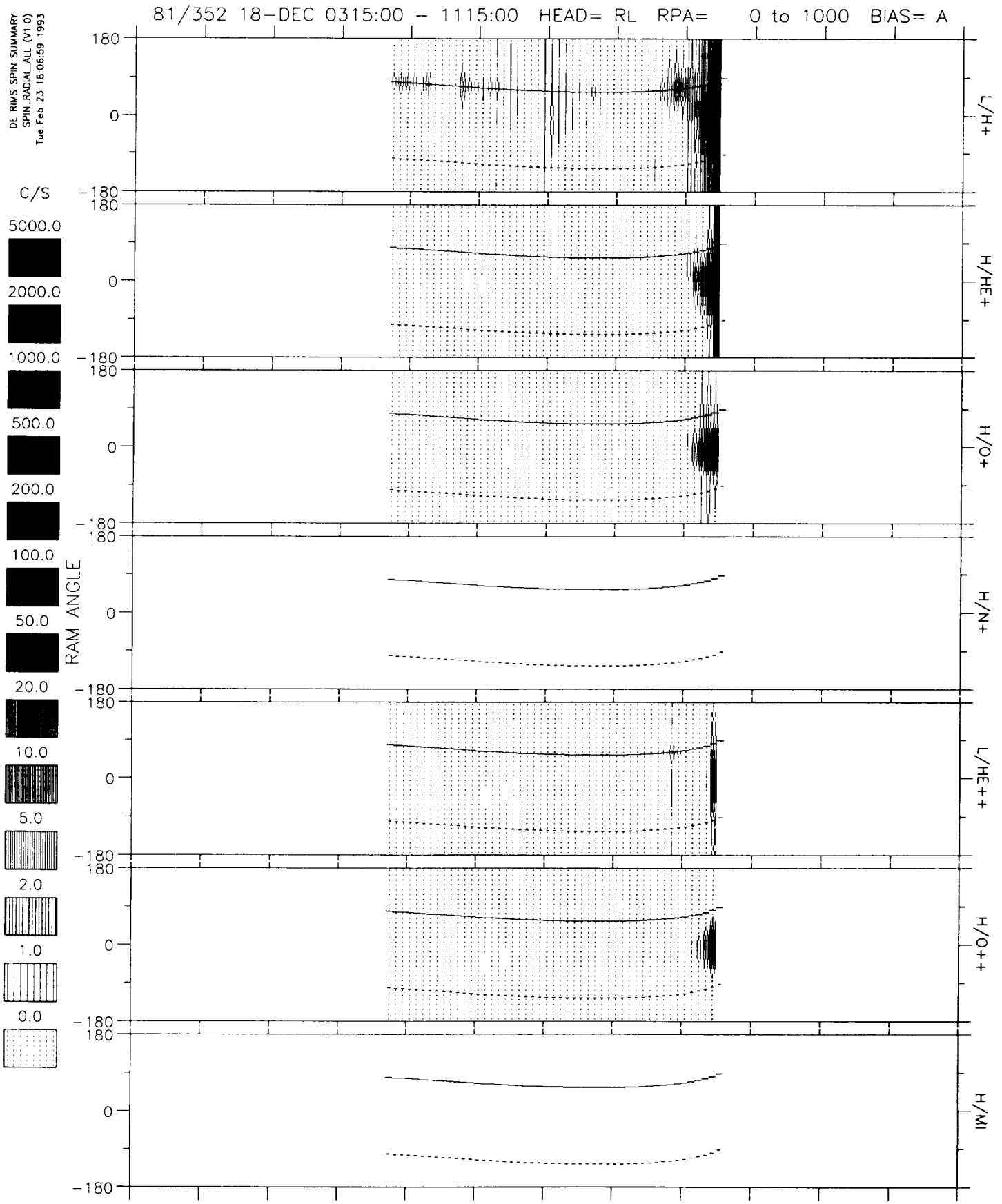


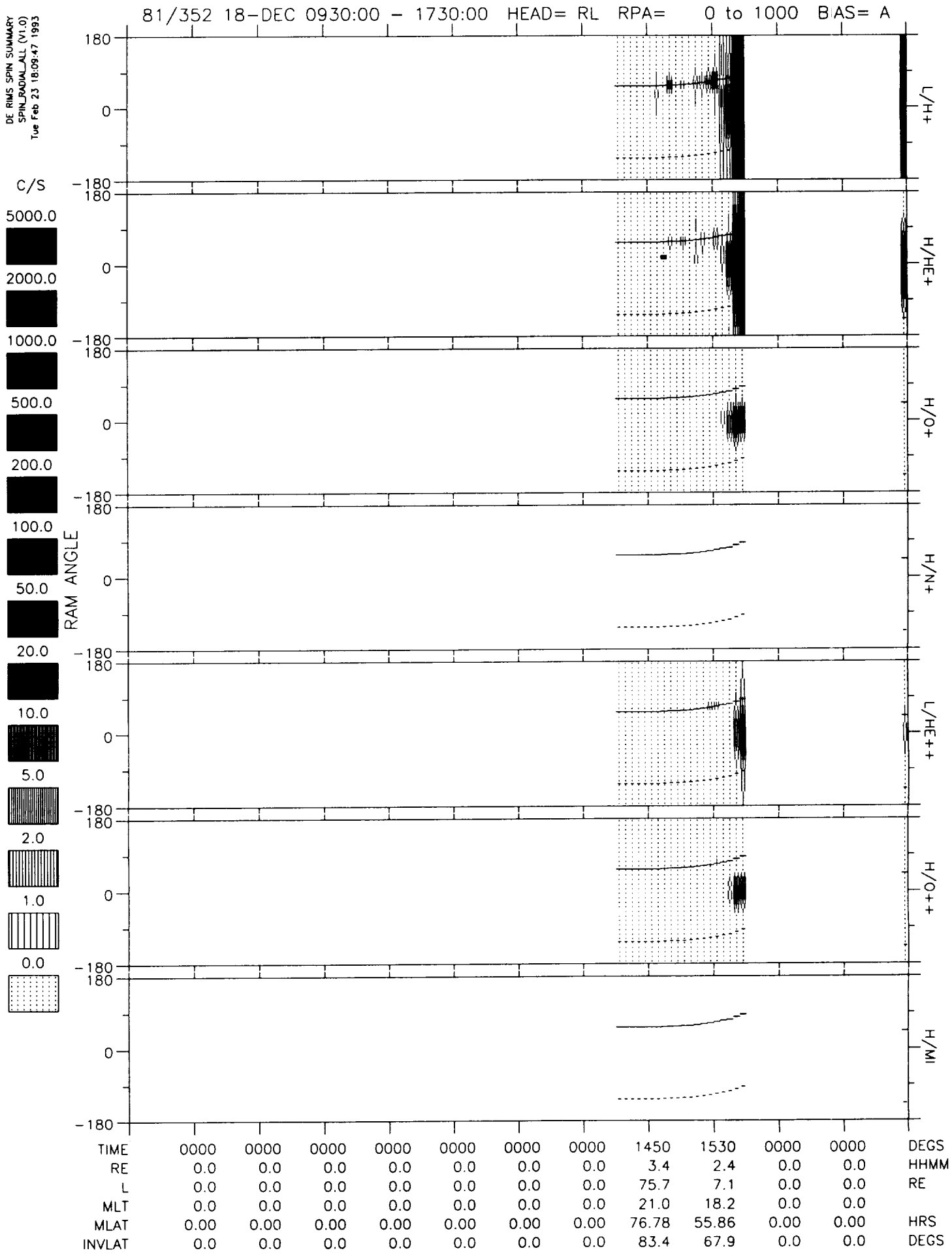
TIME	0000	1750	1830	1910	1950	2030	2110	2150	2230	0000	0000	DEGS
RE	0.0	3.6	4.2	4.6	4.7	4.5	4.1	3.3	2.2	0.0	0.0	HHMM
L	0.0	3.8	5.4	7.6	10.8	17.3	40.1	-0.0	10.2	0.0	0.0	RE
MLT	0.0	4.8	4.7	4.5	4.5	4.5	4.6	5.8	16.4	0.0	0.0	
MLAT	0.00	15.07	28.25	38.57	48.14	58.22	70.20	86.65	62.58	0.00	0.00	HRS
INVLAT	0.0	58.9	64.5	68.7	72.3	76.1	80.9	-0.0	71.8	0.0	0.0	DEGS

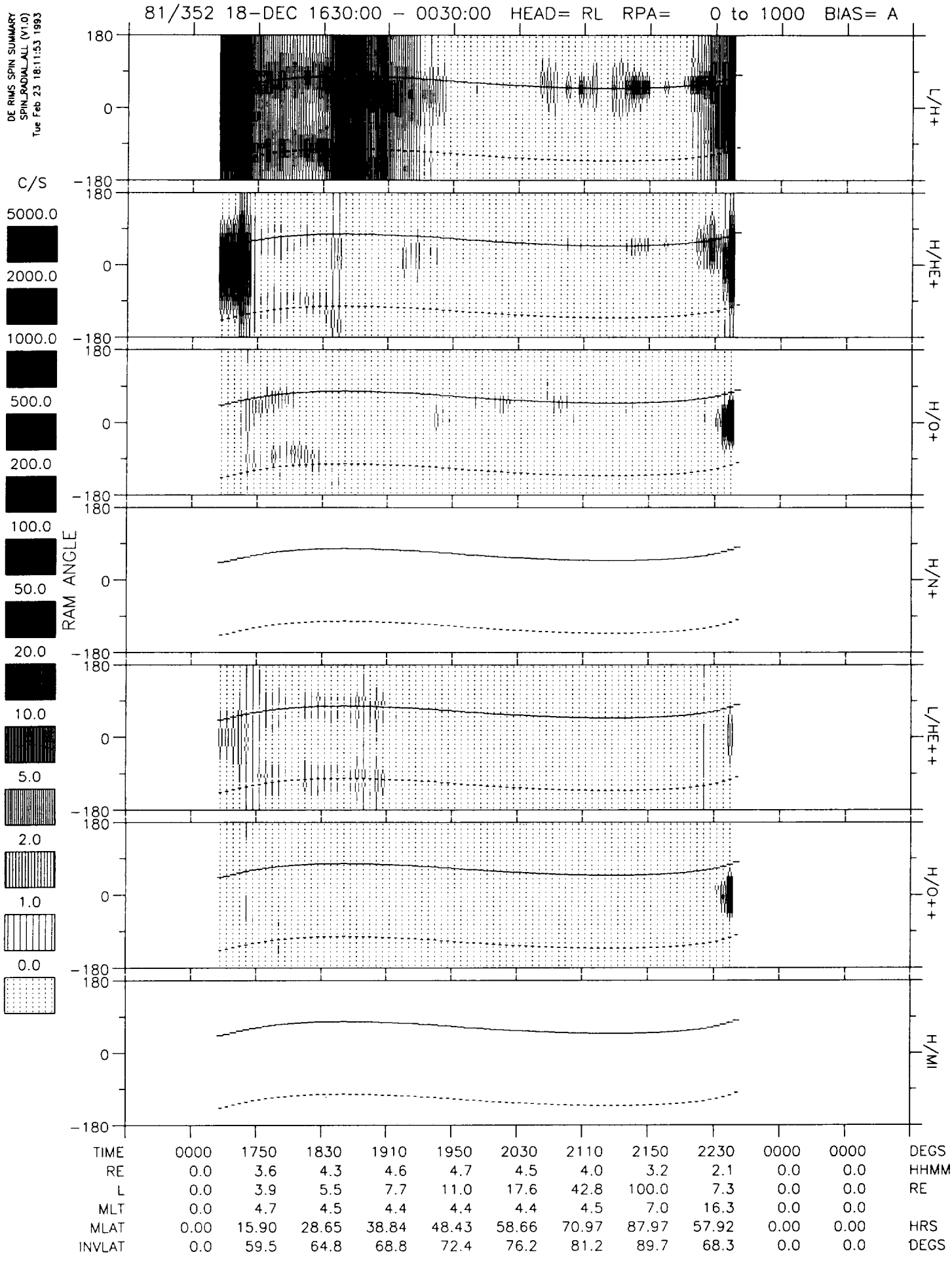

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 17:59:29 1993
81/350 16-DEC 2315:00 - 0715:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0435 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 75.5 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 13.5 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 76.26 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 83.4 0.0 0.0 0.0 DEGS

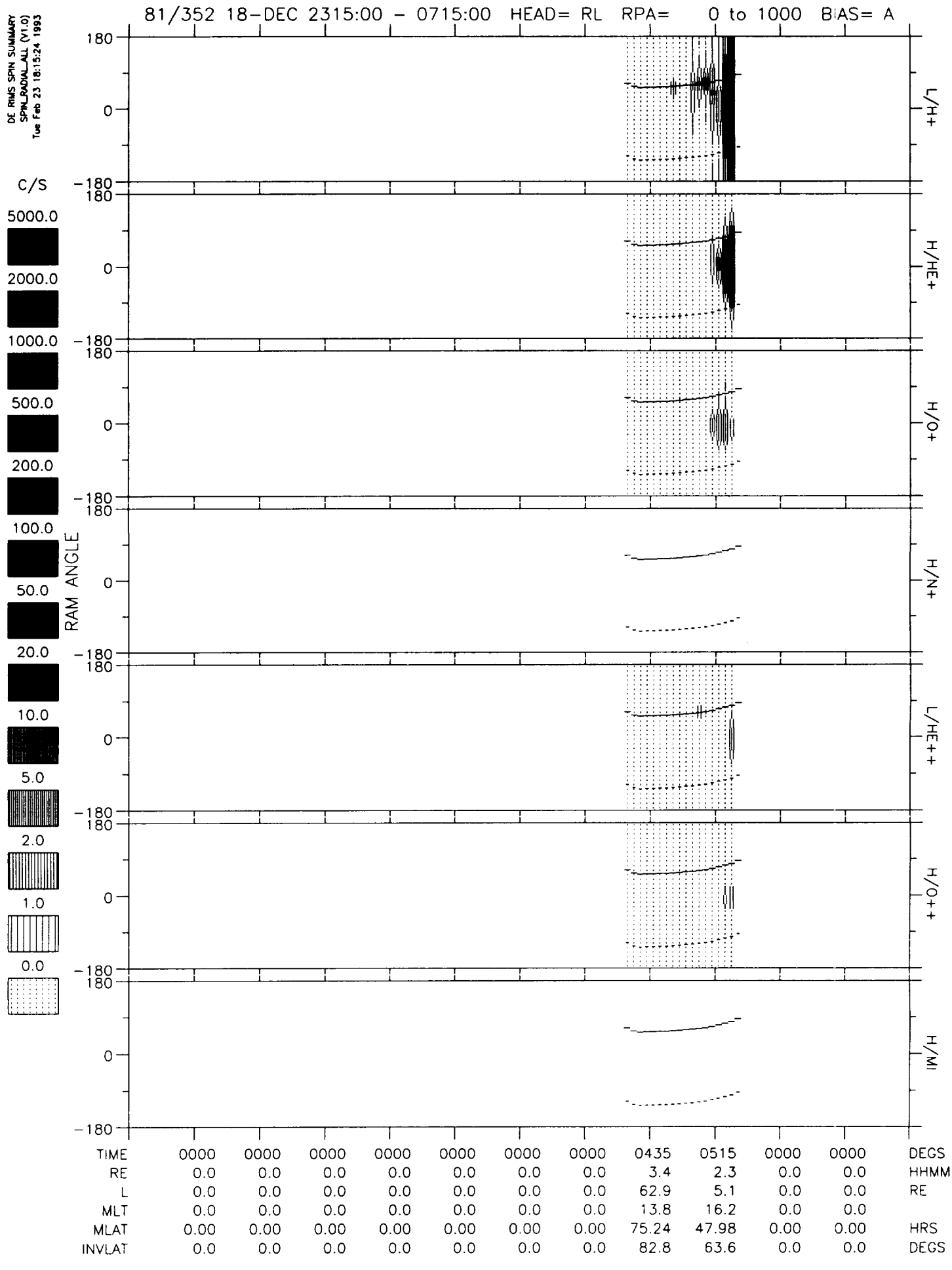

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 18:00:44 1993
81/351 17-DEC 0600:00 - 1400:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0800 0840 0920 1000 1040 1120 1200 0000 0000 DEGS
RE 0.0 0.0 4.1 4.5 4.7 4.6 4.2 3.6 2.6 0.0 0.0 HHMM
L 0.0 0.0 7.3 13.6 28.2 84.4 100.0 78.2 7.8 0.0 0.0 RE
MLT 0.0 0.0 5.7 5.7 5.5 5.0 0.9 18.8 18.0 0.0 0.0
MLAT 0.00 0.00 42.69 55.68 66.78 77.24 86.58 76.42 53.65 0.00 0.00 HRS
INVLAT 0.0 0.0 68.3 74.3 79.2 83.8 88.5 83.5 69.1 0.0 0.0 DEGS

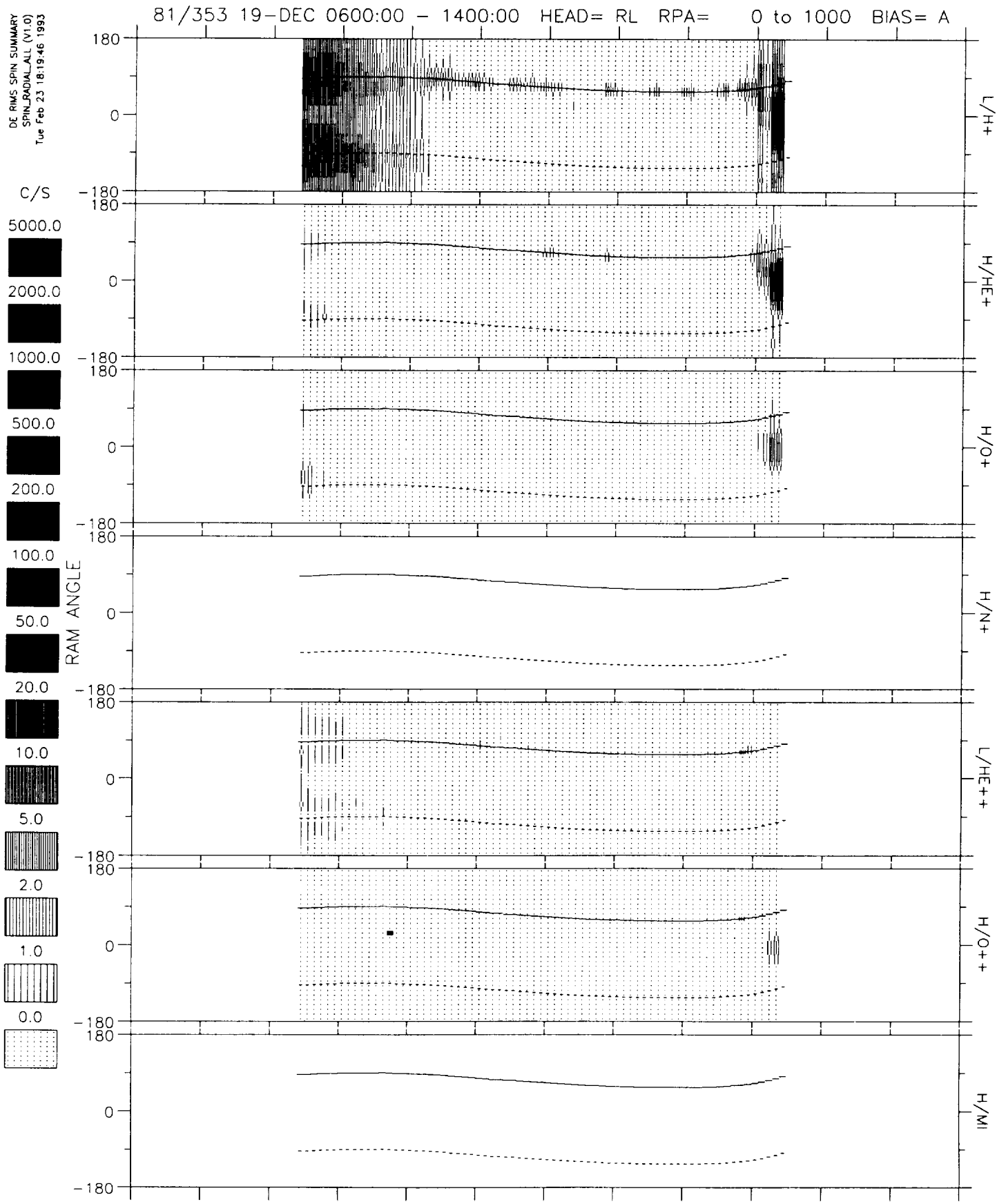

81/351 17-DEC 1300:00 - 2100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 18:02:57 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 1700 1740 1820 1900 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.5 4.1 3.4 2.3 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 21.7 47.5 100.0 9.3 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 3.6 2.9 23.5 17.8 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 62.18 71.74 81.48 62.84 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 77.6 81.7 85.6 70.9 0.0 0.0 DEGS


81/352 18-DEC 0315:00 - 1115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 18:06:59 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0555 0635 0715 0755 0835 0000 0000 0000 DEGS
RE 0.0 0.0 0.0 4.7 4.6 4.2 3.5 2.5 0.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 18.3 44.8 100.0 68.0 6.6 0.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 6.3 7.0 10.0 16.1 17.1 0.0 0.0 0.0
MLAT 0.00 0.00 0.00 61.09 72.67 83.09 75.50 50.26 0.00 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 76.5 81.4 86.3 83.0 67.0 0.0 0.0 0.0 DEGS

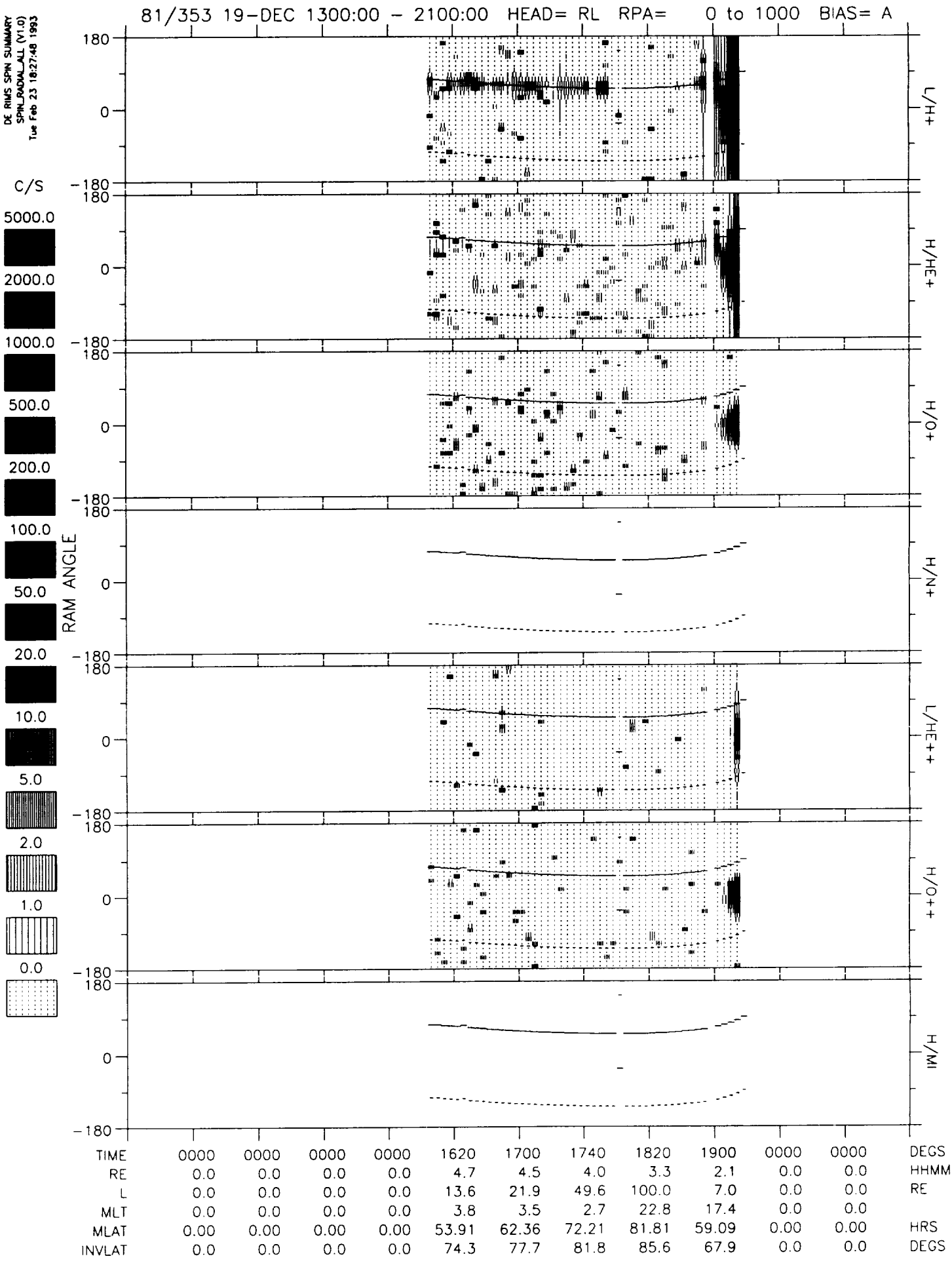

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 18:09:47 1993
81/352 18-DEC 0930:00 - 1730:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 1450 1530 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 2.4 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 75.7 7.1 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 21.0 18.2 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 76.78 55.86 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 83.4 67.9 0.0 0.0 DEGS

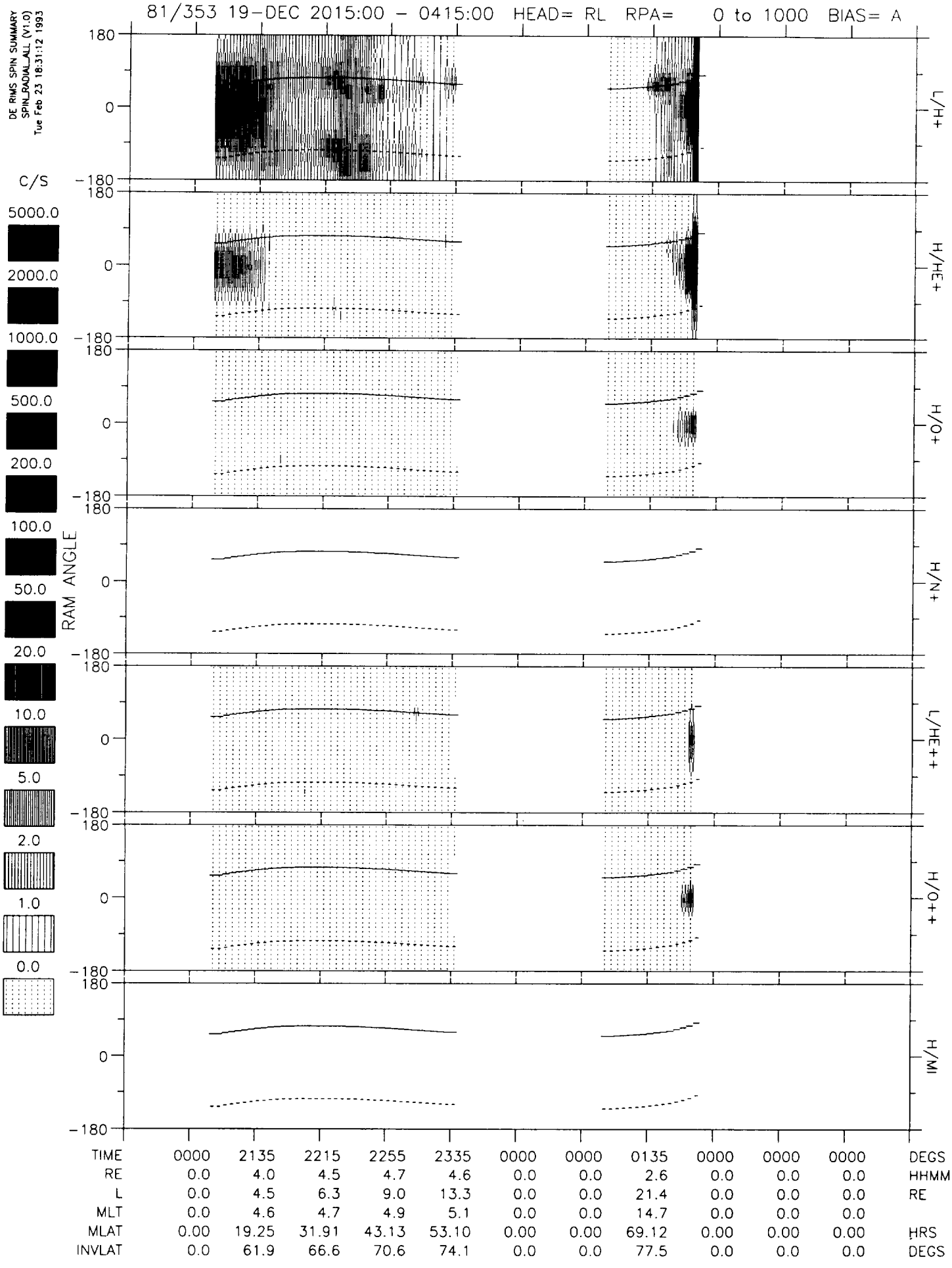

81/352 18-DEC 1630:00 - 0030:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 18:11:53 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1750 1830 1910 1950 2030 2110 2150 2230 0000 0000 DEGS
RE 0.0 3.6 4.3 4.6 4.7 4.5 4.0 3.2 2.1 0.0 0.0 HHMM
L 0.0 3.9 5.5 7.7 11.0 17.6 42.8 100.0 7.3 0.0 0.0 RE
MLT 0.0 4.7 4.5 4.4 4.4 4.4 4.5 7.0 16.3 0.0 0.0
MLAT 0.00 15.90 28.65 38.84 48.43 58.66 70.97 87.97 57.92 0.00 0.00 HRS
INVLAT 0.0 59.5 64.8 68.8 72.4 76.2 81.2 89.7 68.3 0.0 0.0 DEGS

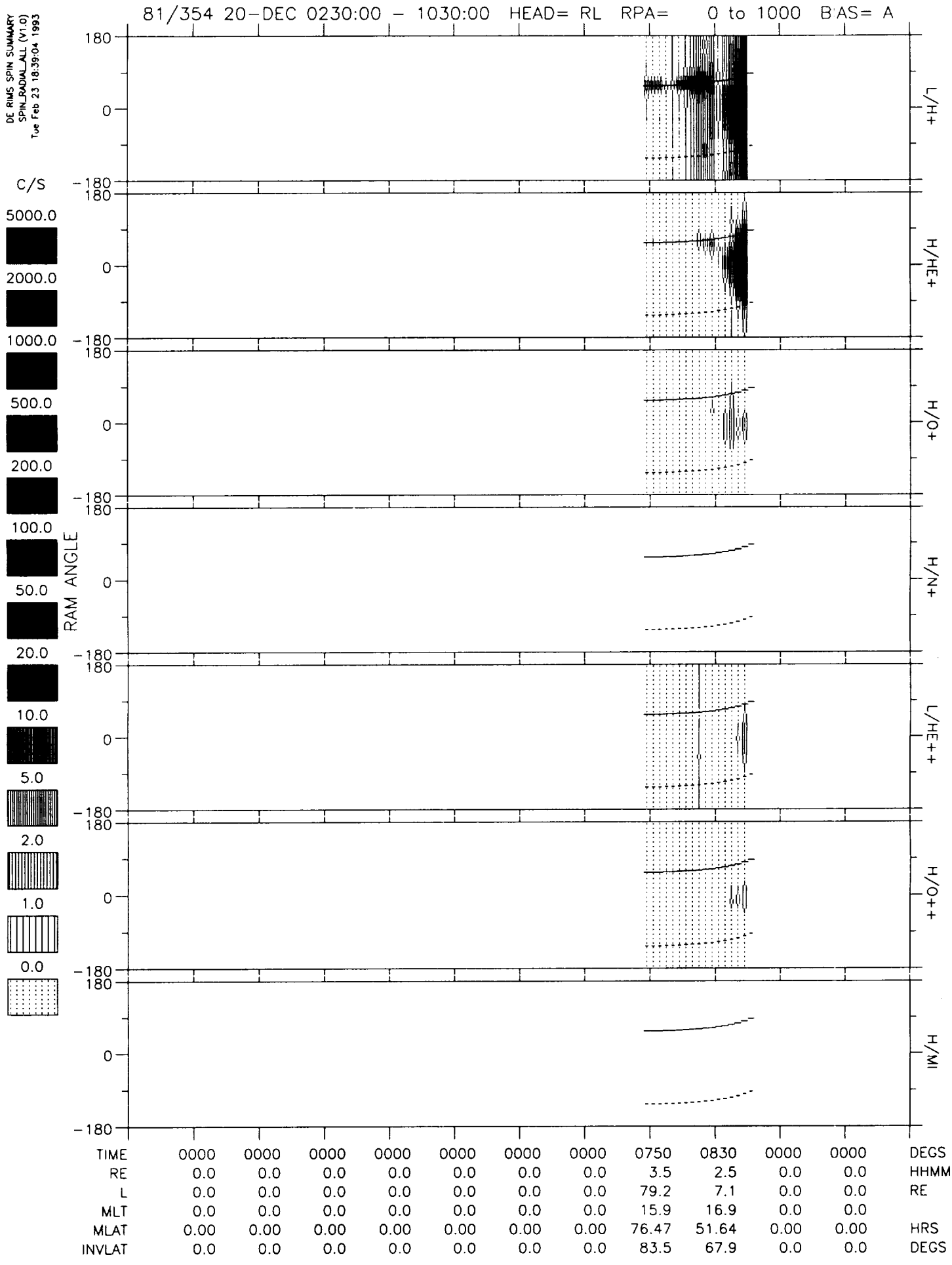

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 18:15:24 1993
81/352 18-DEC 2315:00 - 0715:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0435 0515 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 2.3 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 62.9 5.1 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 13.8 16.2 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 75.24 47.98 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 82.8 63.6 0.0 0.0 DEGS

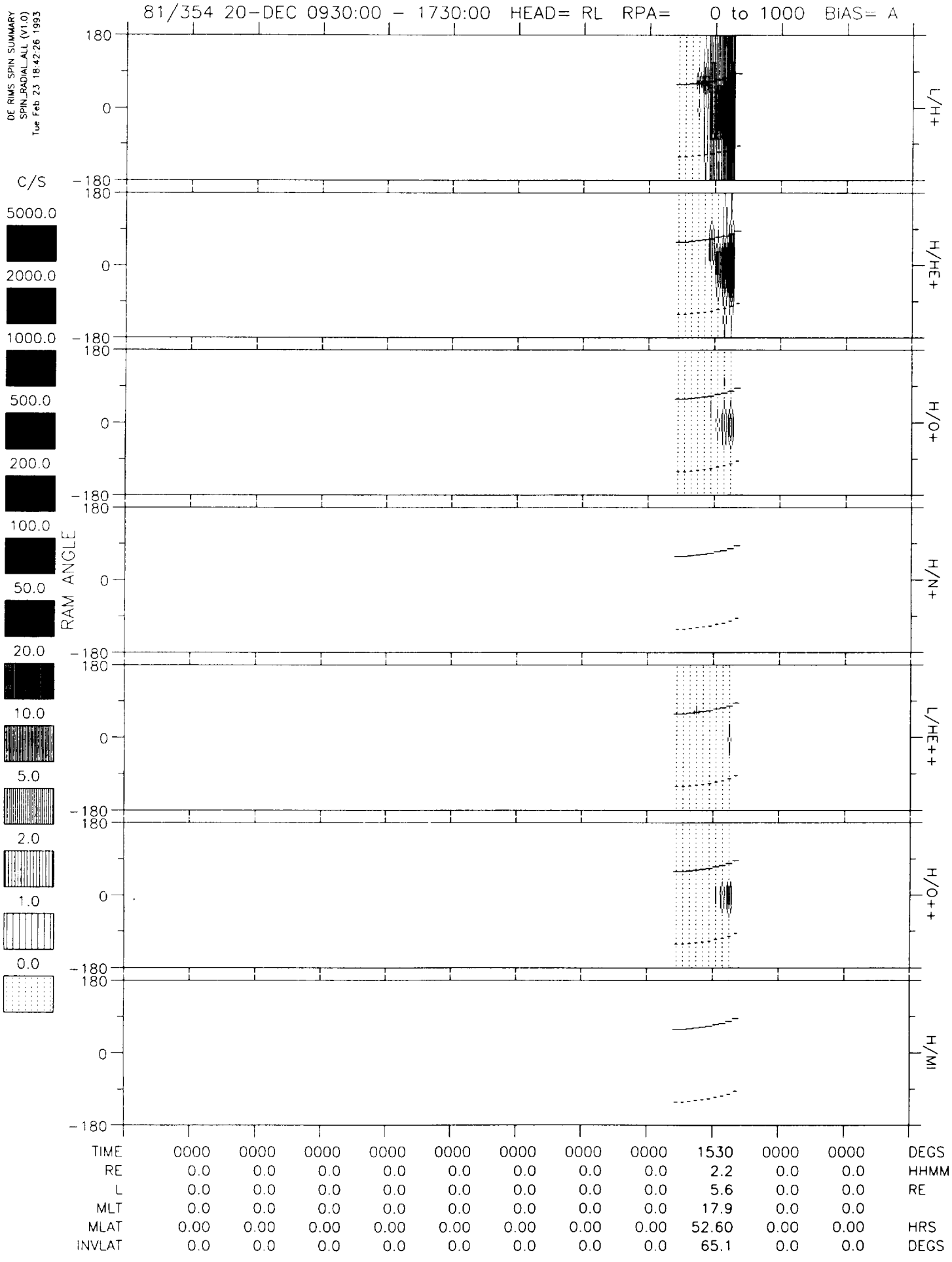


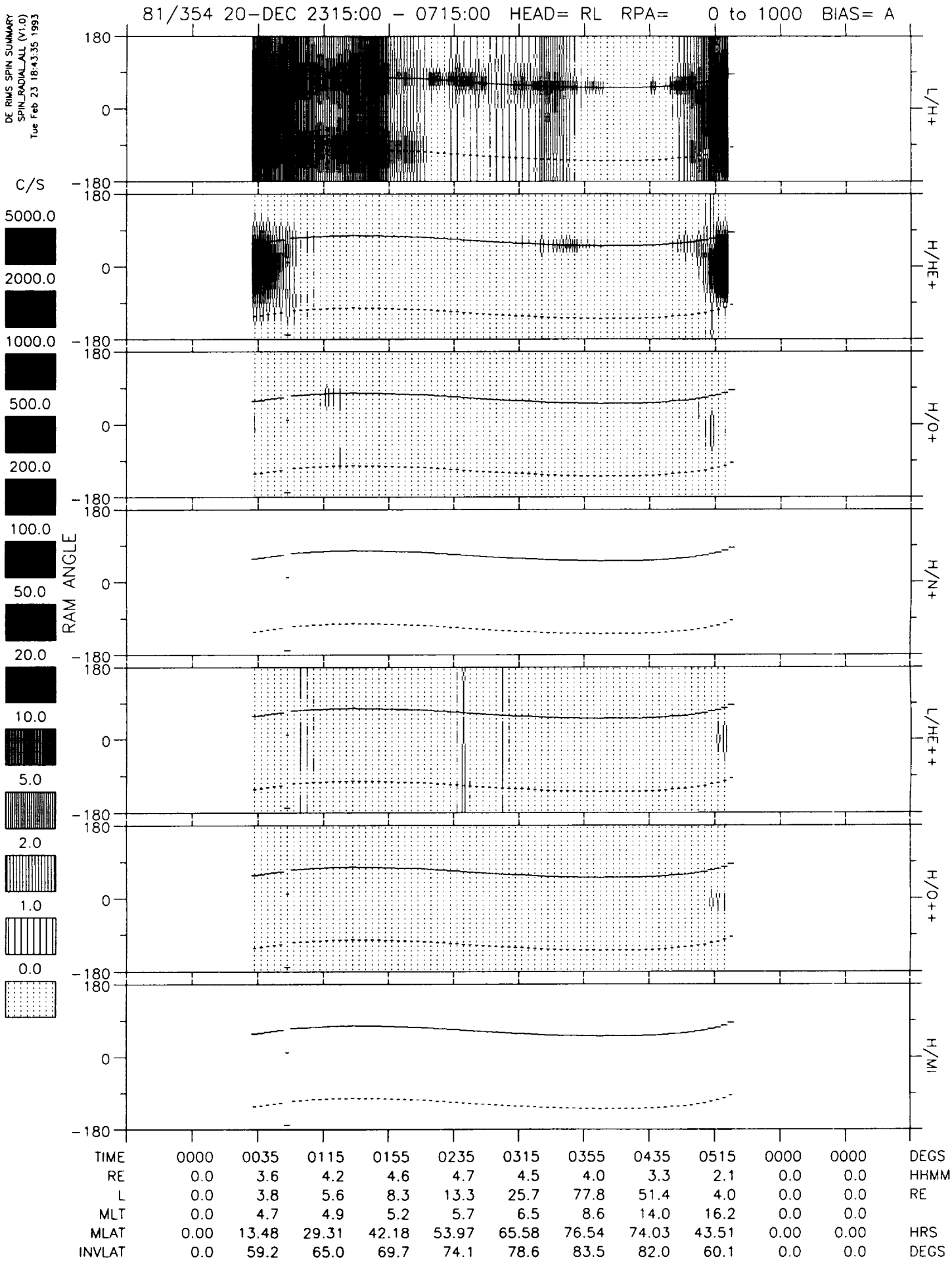
TIME	0000	0000	0800	0840	0920	1000	1040	1120	1200	0000	0000	DEGS
RE	0.0	0.0	4.1	4.5	4.7	4.5	4.2	3.5	2.4	0.0	0.0	HHMM
L	0.0	0.0	7.7	14.1	29.4	89.5	100.0	64.4	6.5	0.0	0.0	RE
MLT	0.0	0.0	5.5	5.5	5.3	4.7	0.1	18.7	17.8	0.0	0.0	
MLAT	0.00	0.00	43.62	56.30	67.24	77.62	86.42	75.30	50.77	0.00	0.00	HRS
INVLAT	0.0	0.0	68.8	74.6	79.4	83.9	88.5	82.8	66.9	0.0	0.0	DEGS

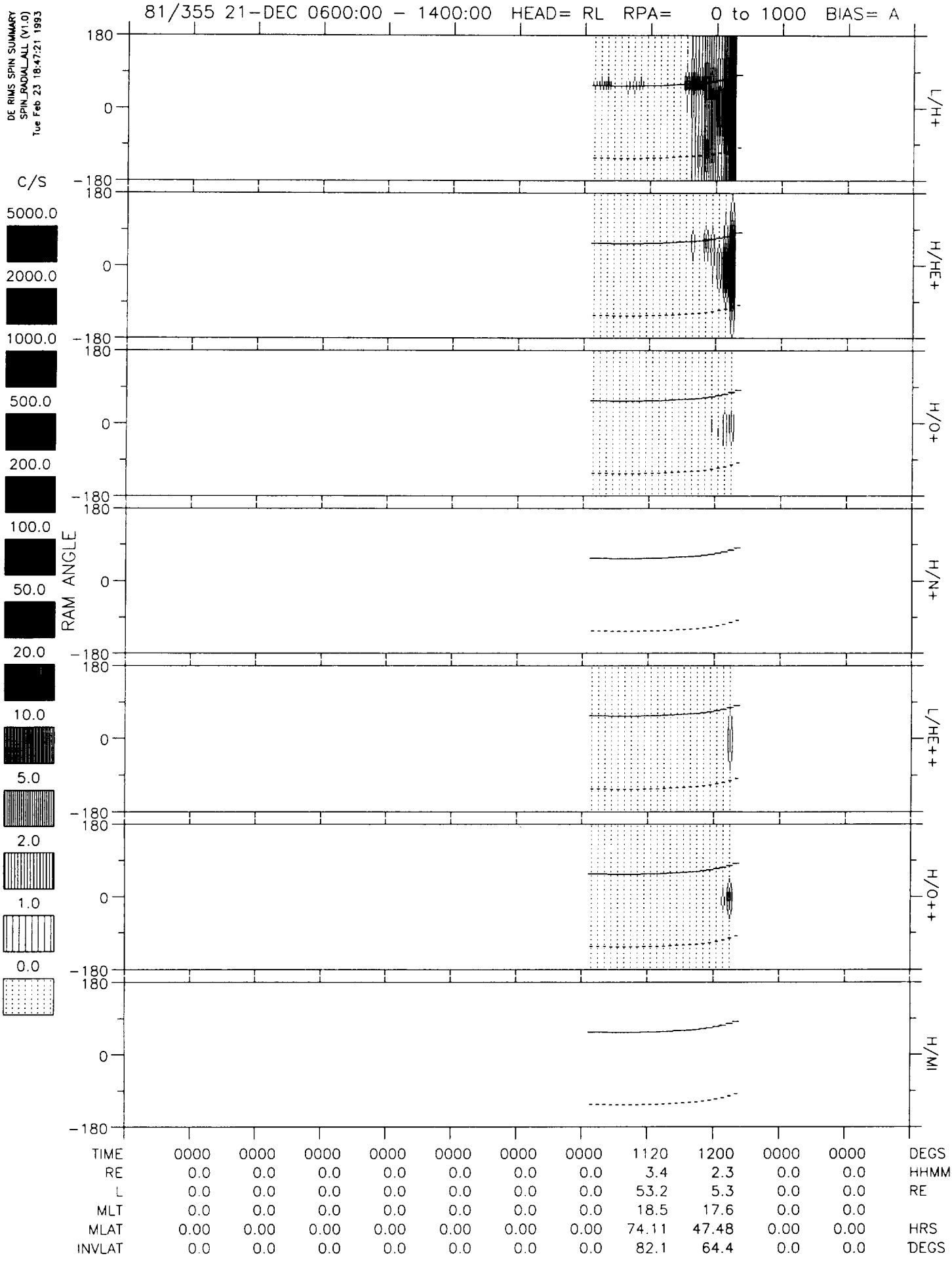

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 18:27:48 1993
81/353 19-DEC 1300:00 - 2100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 1620 1700 1740 1820 1900 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.7 4.5 4.0 3.3 2.1 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 13.6 21.9 49.6 100.0 7.0 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 3.8 3.5 2.7 22.8 17.4 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 53.91 62.36 72.21 81.81 59.09 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 74.3 77.7 81.8 85.6 67.9 0.0 0.0 DEGS

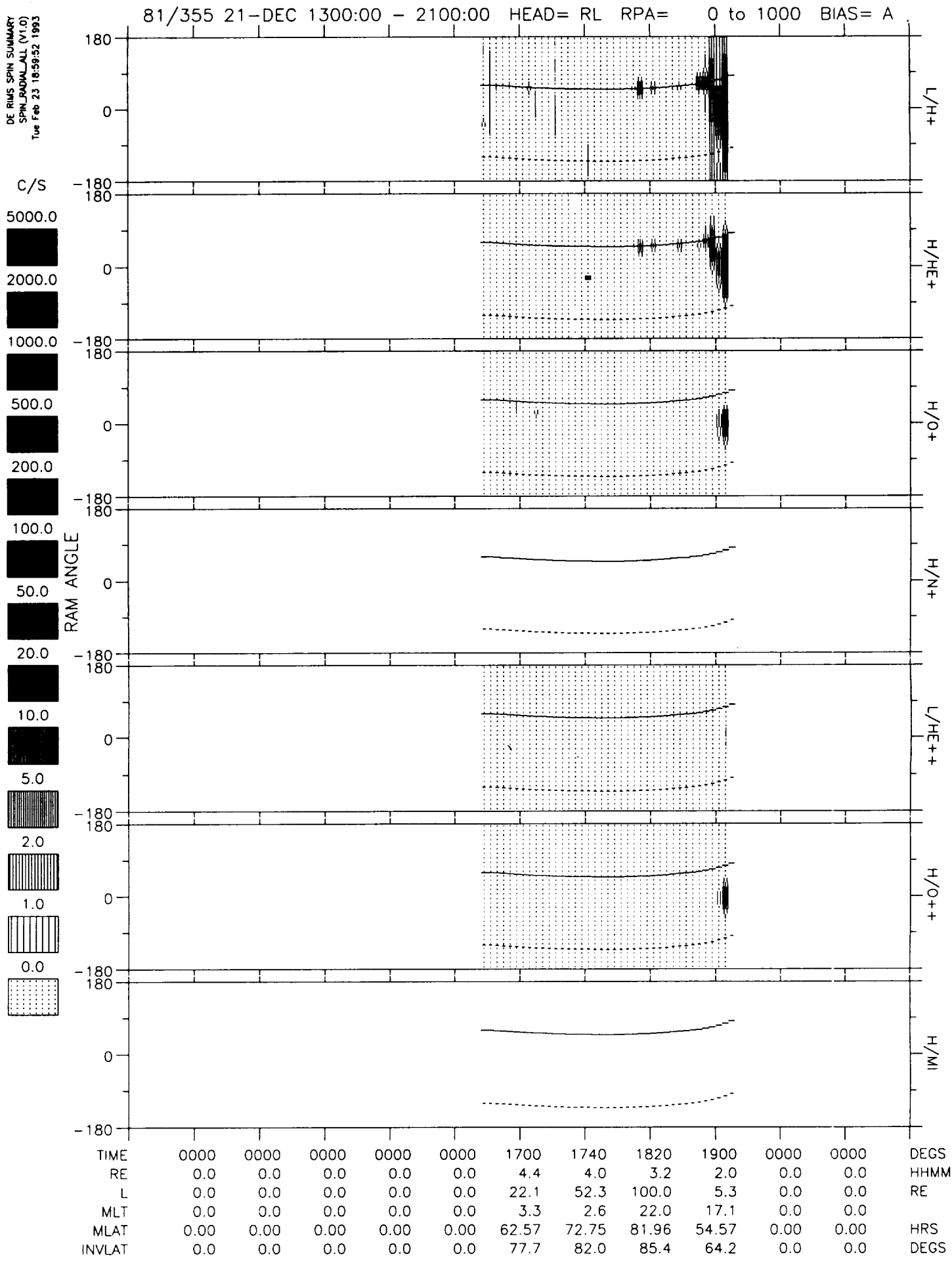

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 18:31:12 1993
81/353 19-DEC 2015:00 - 0415:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 2135 2215 2255 2335 0000 0000 0135 0000 0000 0000 DEGS
RE 0.0 4.0 4.5 4.7 4.6 0.0 0.0 2.6 0.0 0.0 0.0 HHMM
L 0.0 4.5 6.3 9.0 13.3 0.0 0.0 21.4 0.0 0.0 0.0 RE
MLT 0.0 4.6 4.7 4.9 5.1 0.0 0.0 14.7 0.0 0.0 0.0
MLAT 0.00 19.25 31.91 43.13 53.10 0.00 0.00 69.12 0.00 0.00 0.00 HRS
INVLAT 0.0 61.9 66.6 70.6 74.1 0.0 0.0 77.5 0.0 0.0 0.0 DEGS

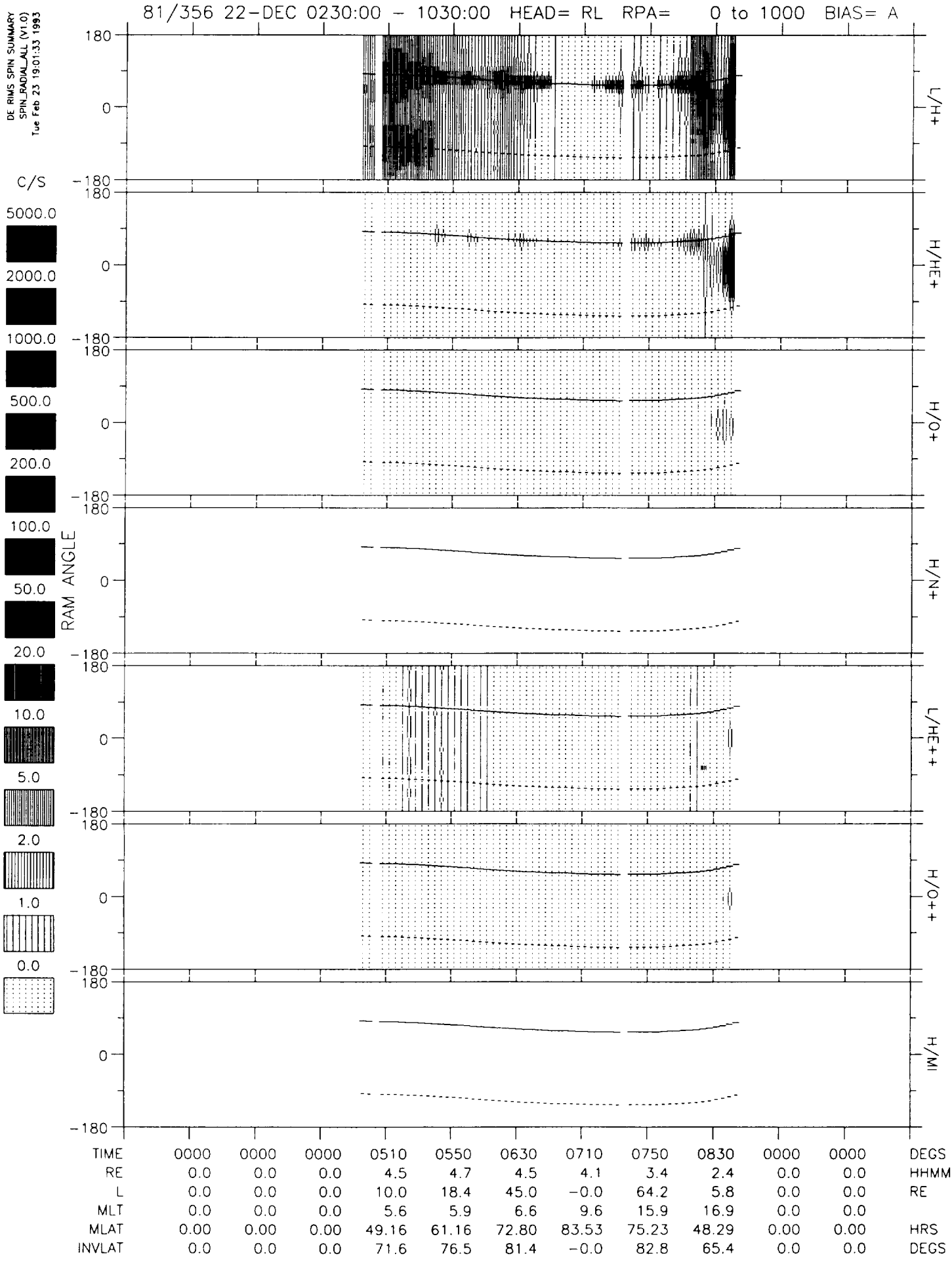

81/354 20-DEC 0230:00 - 1030:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 18:39:04 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0750 0830 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.5 2.5 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 79.2 7.1 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 15.9 16.9 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 76.47 51.64 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 83.5 67.9 0.0 0.0 DEGS

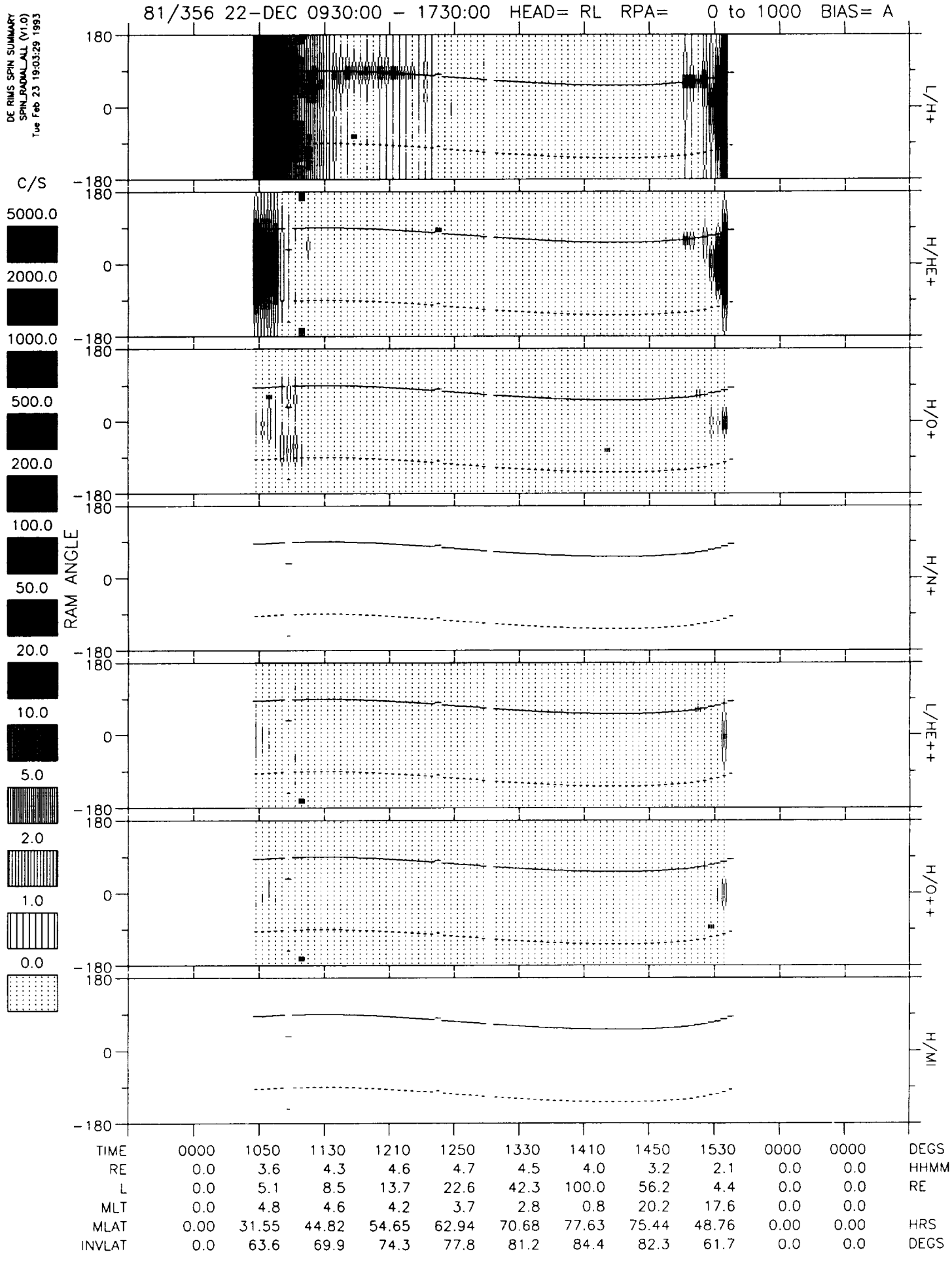

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 18:42:26 1993
81/354 20-DEC 0930:00 - 1730:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 1530 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.2 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.6 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 17.9 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 52.60 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 65.1 0.0 0.0 DEGS

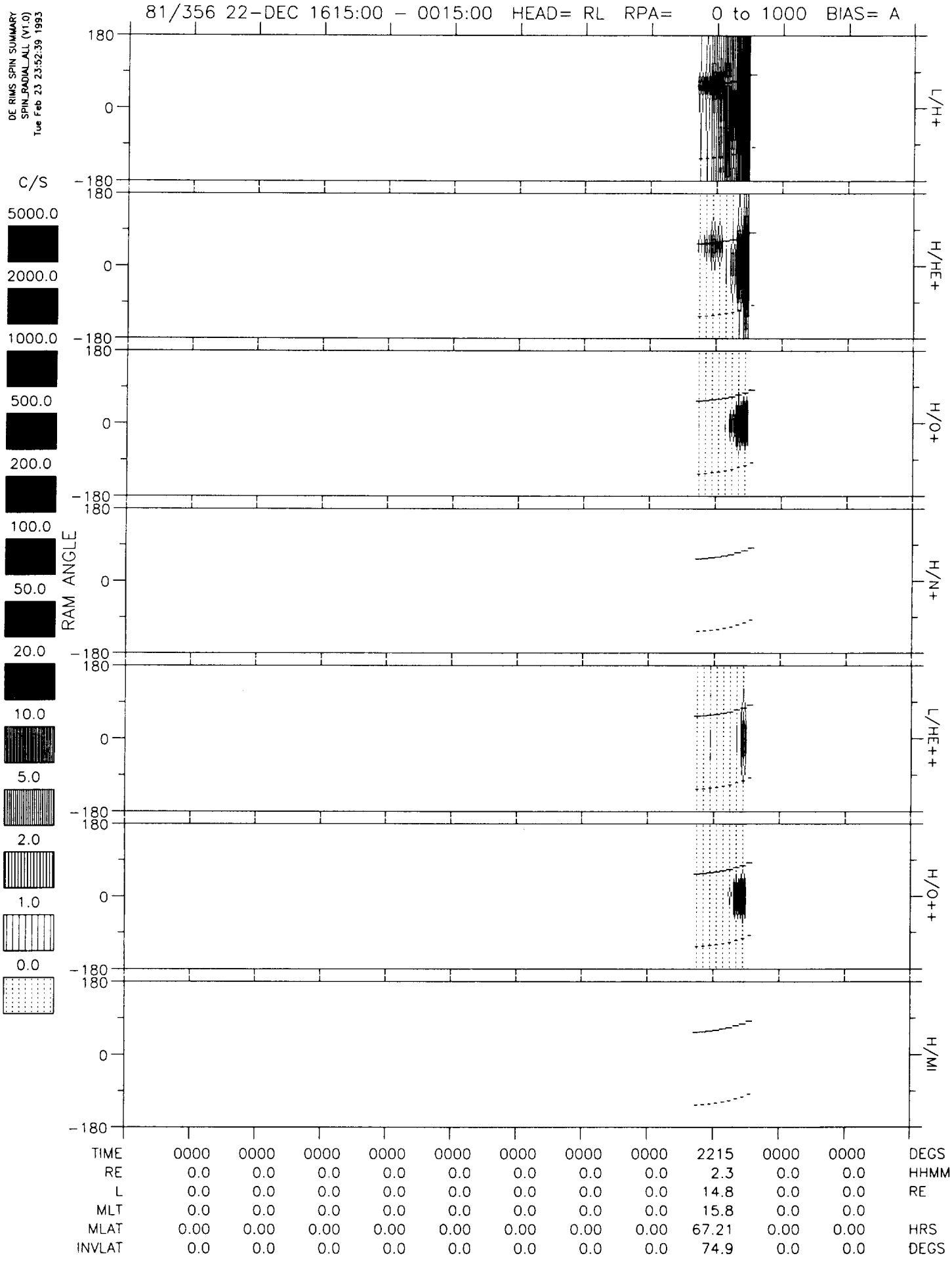

81/354 20-DEC 2315:00 - 0715:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 18:43:35 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0035 0115 0155 0235 0315 0355 0435 0515 0000 0000 DEGS
RE 0.0 3.6 4.2 4.6 4.7 4.5 4.0 3.3 2.1 0.0 0.0 HHMM
L 0.0 3.8 5.6 8.3 13.3 25.7 77.8 51.4 4.0 0.0 0.0 RE
MLT 0.0 4.7 4.9 5.2 5.7 6.5 8.6 14.0 16.2 0.0 0.0
MLAT 0.00 13.48 29.31 42.18 53.97 65.58 76.54 74.03 43.51 0.00 0.00 HRS
INVLAT 0.0 59.2 65.0 69.7 74.1 78.6 83.5 82.0 60.1 0.0 0.0 DEGS

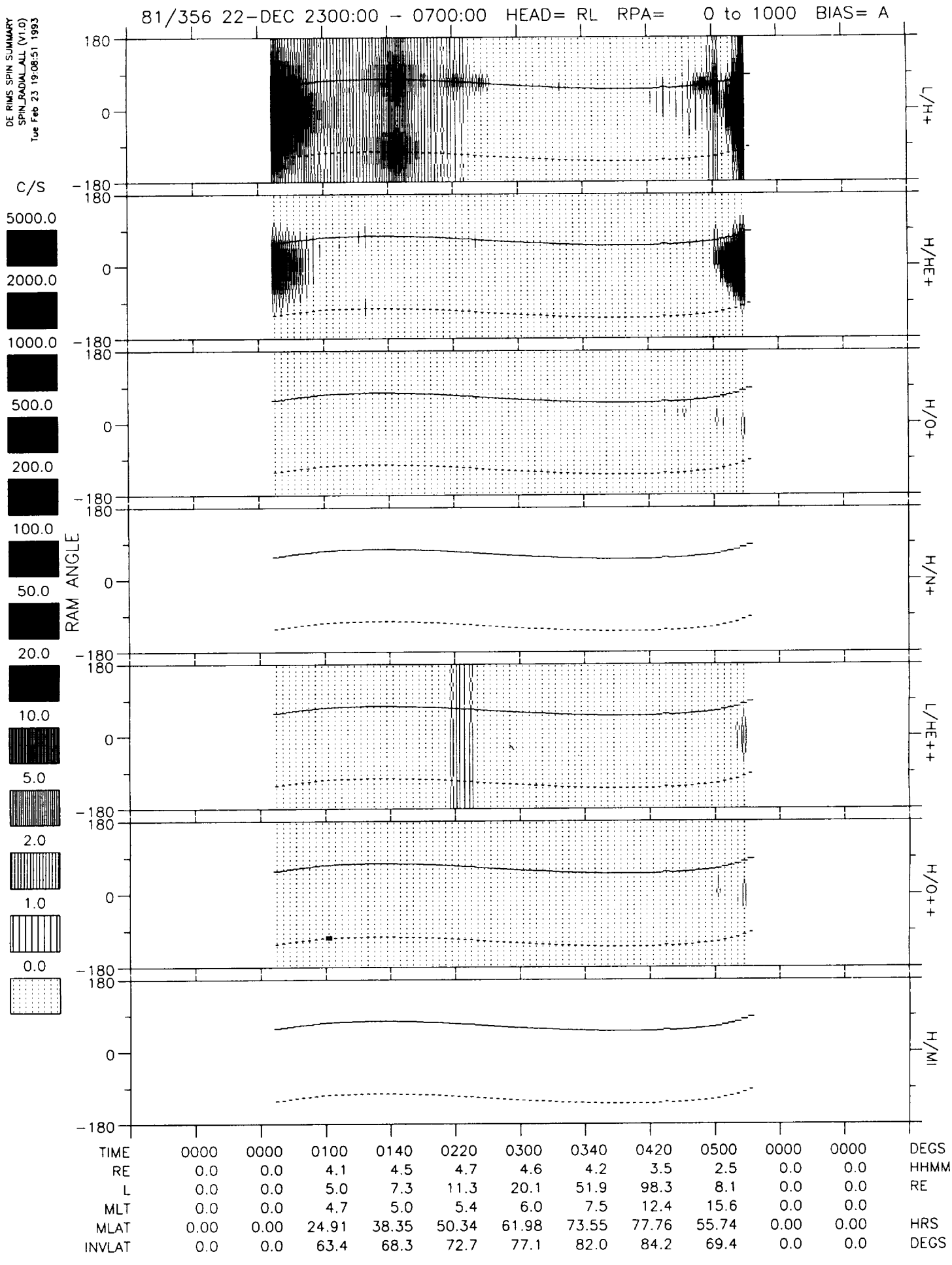

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 18:47:21 1993
81/355 21-DEC 0600:00 - 1400:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 1120 1200 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 2.3 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 53.2 5.3 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 18.5 17.6 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 74.11 47.48 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 82.1 64.4 0.0 0.0 DEGS

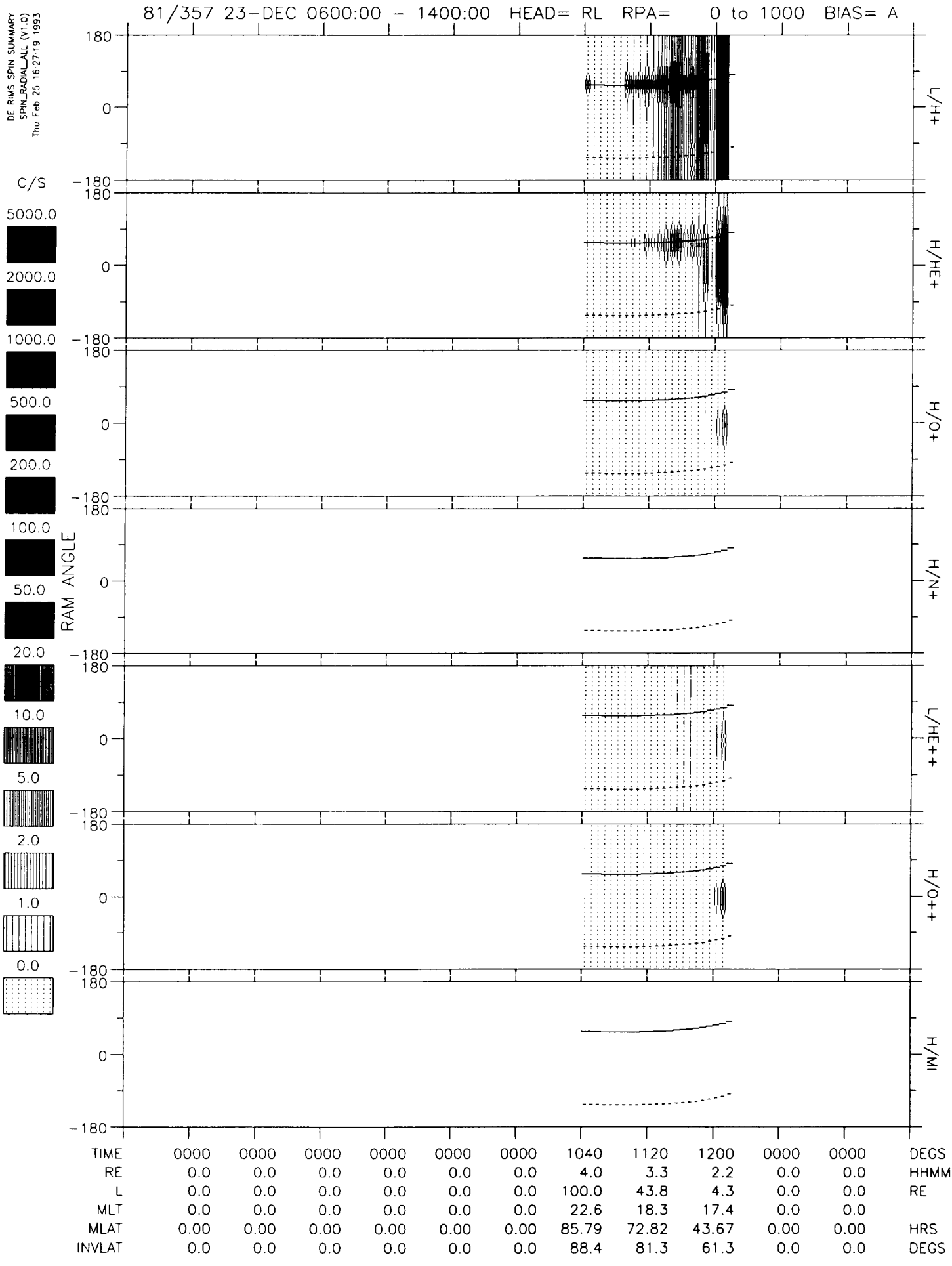

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 18:59:52 1993
81/355 21-DEC 1300:00 - 2100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 1700 1740 1820 1900 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.4 4.0 3.2 2.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 22.1 52.3 100.0 5.3 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 3.3 2.6 22.0 17.1 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 62.57 72.75 81.96 54.57 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 77.7 82.0 85.4 64.2 0.0 0.0 DEGS

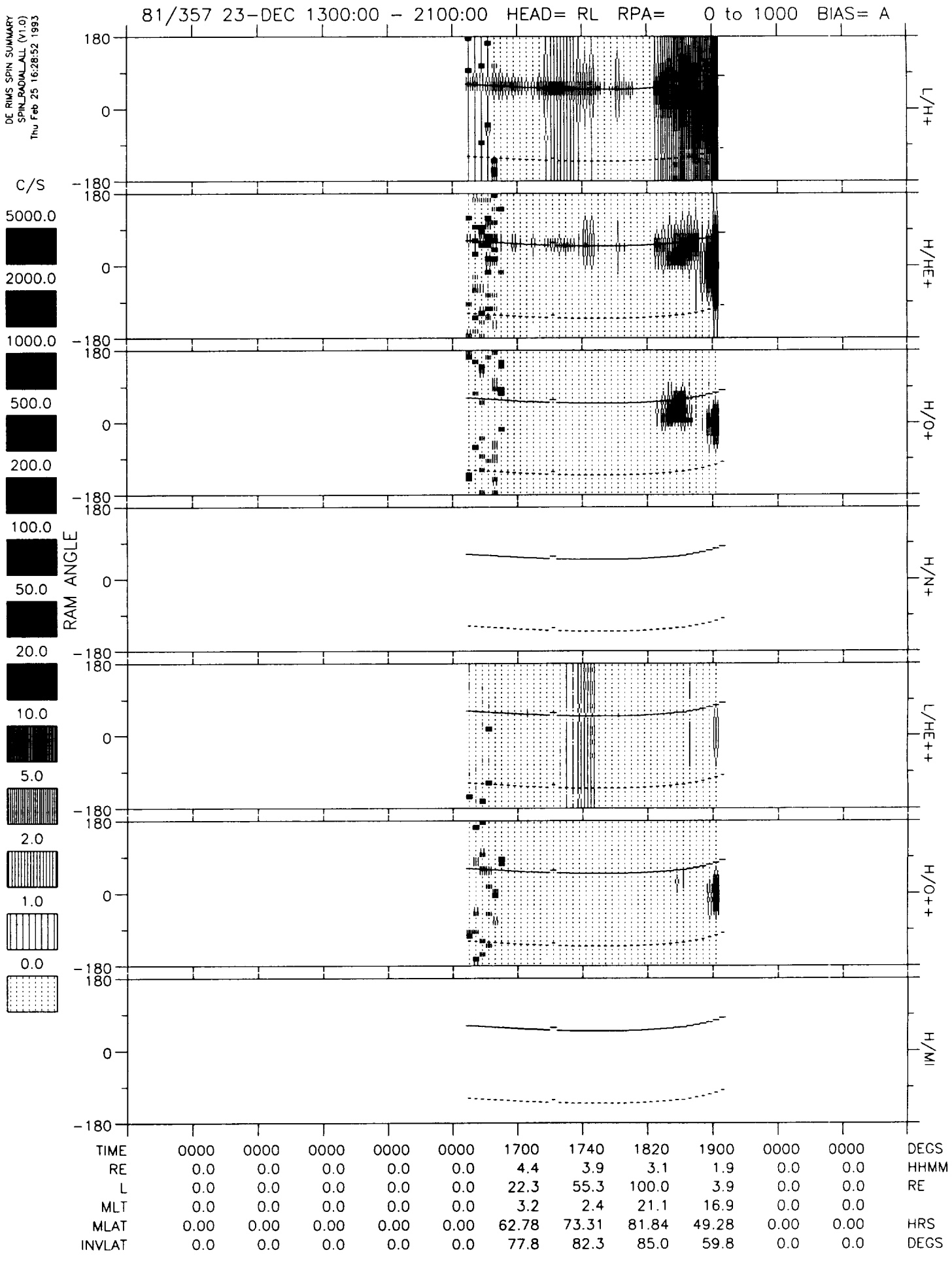

81/356 22-DEC 0230:00 - 1030:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 19:01:33 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0510 0550 0630 0710 0750 0830 0000 0000 DEGS
RE 0.0 0.0 0.0 4.5 4.7 4.5 4.1 3.4 2.4 0.0 0.0 HHMM
L 0.0 0.0 0.0 10.0 18.4 45.0 -0.0 64.2 5.8 0.0 0.0 RE
MLT 0.0 0.0 0.0 5.6 5.9 6.6 9.6 15.9 16.9 0.0 0.0
MLAT 0.00 0.00 0.00 49.16 61.16 72.80 83.53 75.23 48.29 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 71.6 76.5 81.4 -0.0 82.8 65.4 0.0 0.0 DEGS

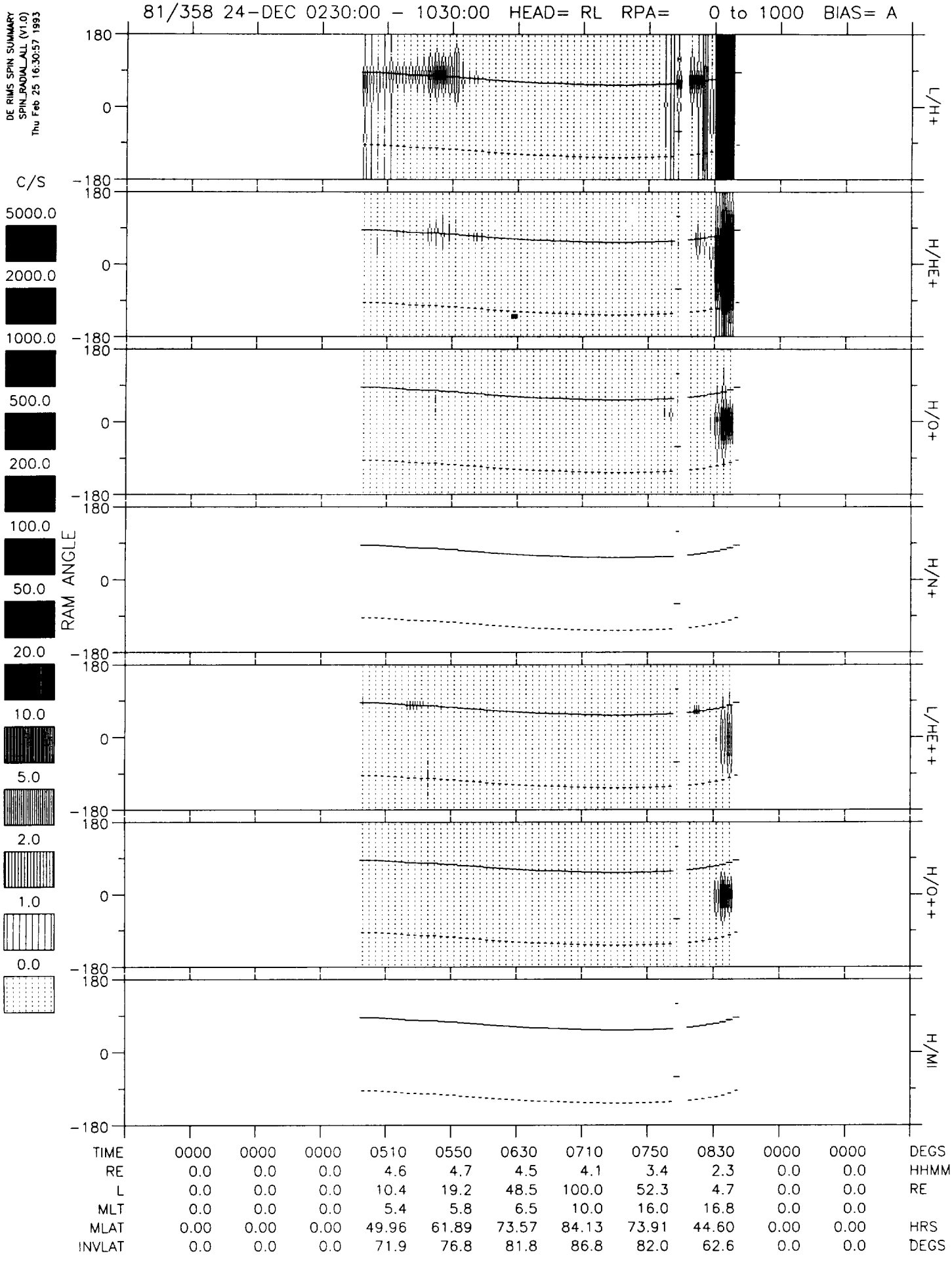

81/356 22-DEC 0930:00 - 1730:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 19:03:29 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1050 1130 1210 1250 1330 1410 1450 1530 0000 0000 DEGS
RE 0.0 3.6 4.3 4.6 4.7 4.5 4.0 3.2 2.1 0.0 0.0 HHMM
L 0.0 5.1 8.5 13.7 22.6 42.3 100.0 56.2 4.4 0.0 0.0 RE
MLT 0.0 4.8 4.6 4.2 3.7 2.8 0.8 20.2 17.6 0.0 0.0
MLAT 0.00 31.55 44.82 54.65 62.94 70.68 77.63 75.44 48.76 0.00 0.00 HRS
INVLAT 0.0 63.6 69.9 74.3 77.8 81.2 84.4 82.3 61.7 0.0 0.0 DEGS

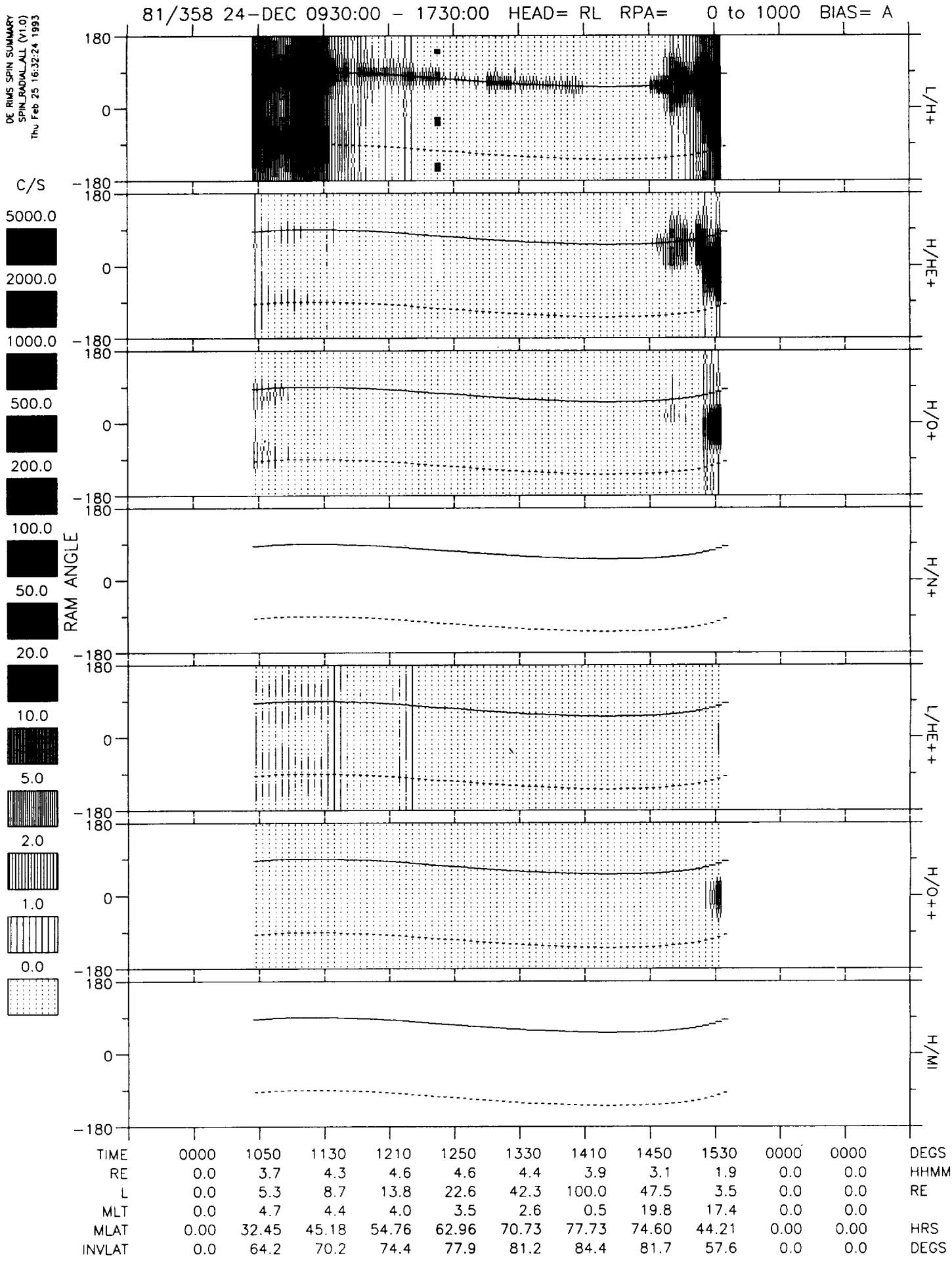

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 23:52:39 1993
81/356 22-DEC 1615:00 - 0015:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 2215 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.3 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 14.8 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 15.8 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 67.21 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 74.9 0.0 0.0 DEGS

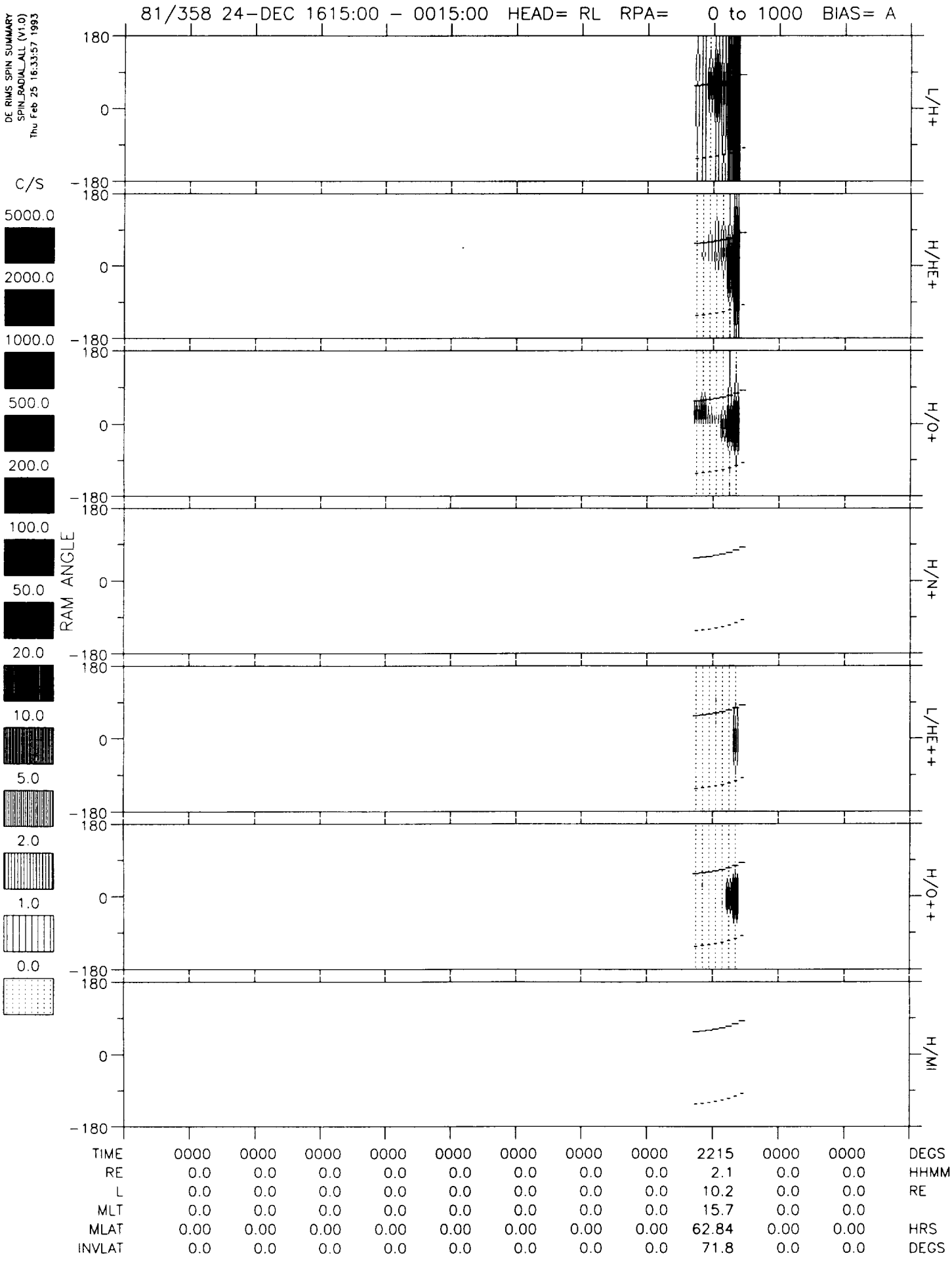

81/356 22-DEC 2300:00 - 0700:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Tue Feb 23 19:08:51 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0100 0140 0220 0300 0340 0420 0500 0000 0000 DEGS
RE 0.0 0.0 4.1 4.5 4.7 4.6 4.2 3.5 2.5 0.0 0.0 HHMM
L 0.0 0.0 5.0 7.3 11.3 20.1 51.9 98.3 8.1 0.0 0.0 RE
MLT 0.0 0.0 4.7 5.0 5.4 6.0 7.5 12.4 15.6 0.0 0.0
MLAT 0.00 0.00 24.91 38.35 50.34 61.98 73.55 77.76 55.74 0.00 0.00 HRS
INVLAT 0.0 0.0 63.4 68.3 72.7 77.1 82.0 84.2 69.4 0.0 0.0 DEGS

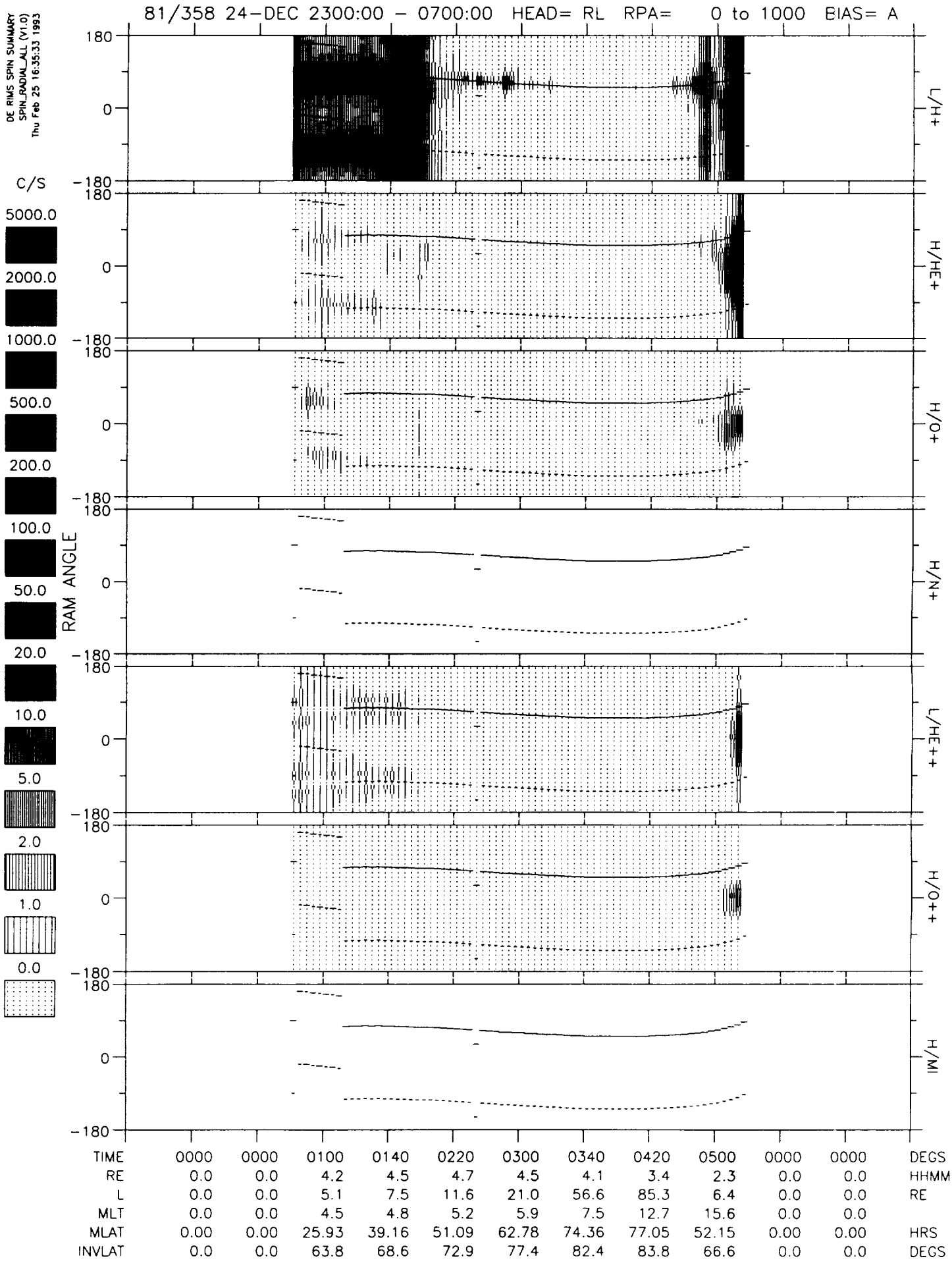

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 16:27:19 1993
81/357 23-DEC 0600:00 - 1400:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 1040 1120 1200 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 4.0 3.3 2.2 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 100.0 43.8 4.3 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 22.6 18.3 17.4 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 85.79 72.82 43.67 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 88.4 81.3 61.3 0.0 0.0 DEGS

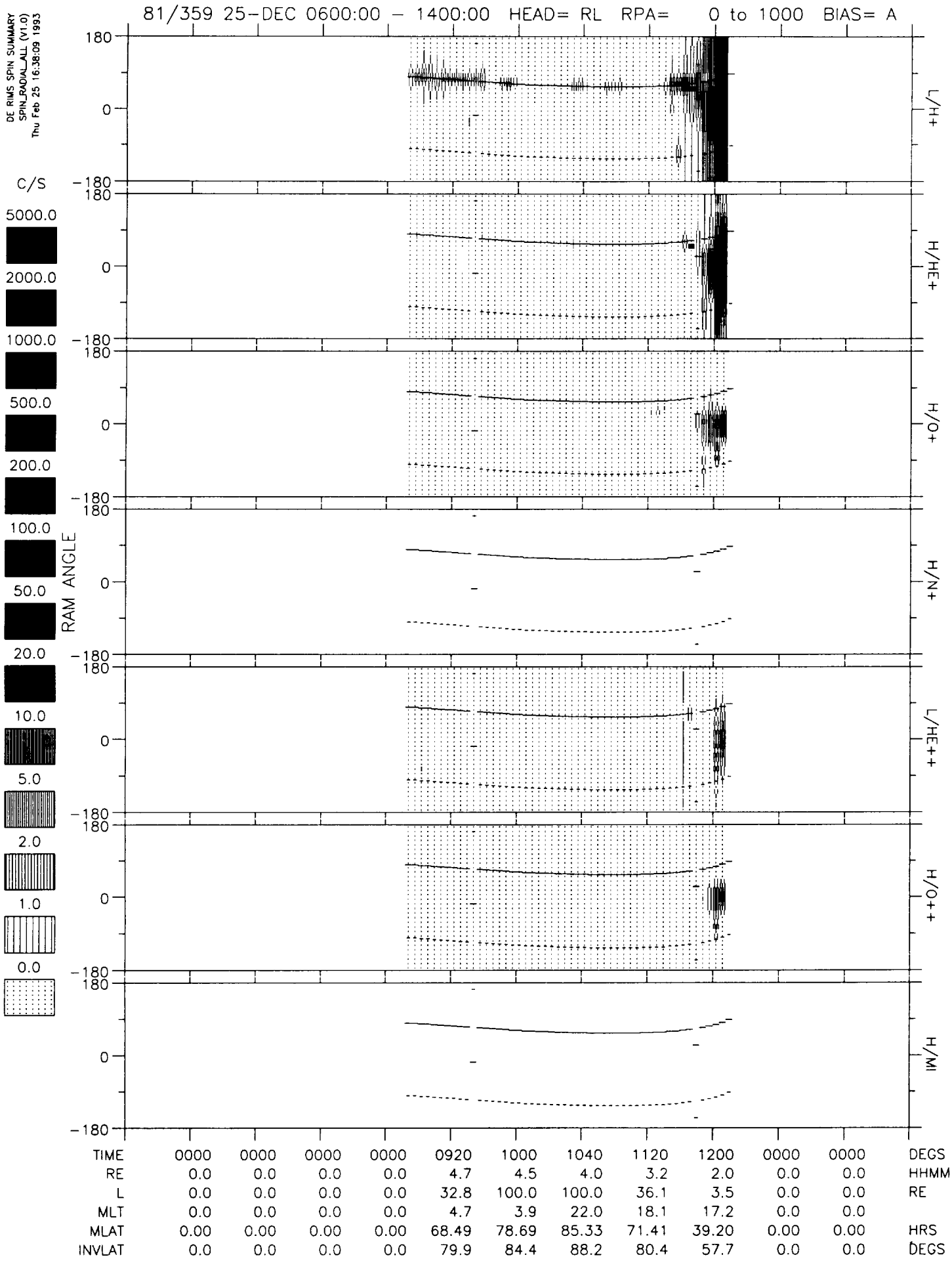

81/357 23-DEC 1300:00 - 2100:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 16:28:52 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 1700 1740 1820 1900 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 4.4 3.9 3.1 1.9 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 22.3 55.3 100.0 3.9 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 3.2 2.4 21.1 16.9 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 62.78 73.31 81.84 49.28 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 77.8 82.3 85.0 59.8 0.0 0.0 DEGS

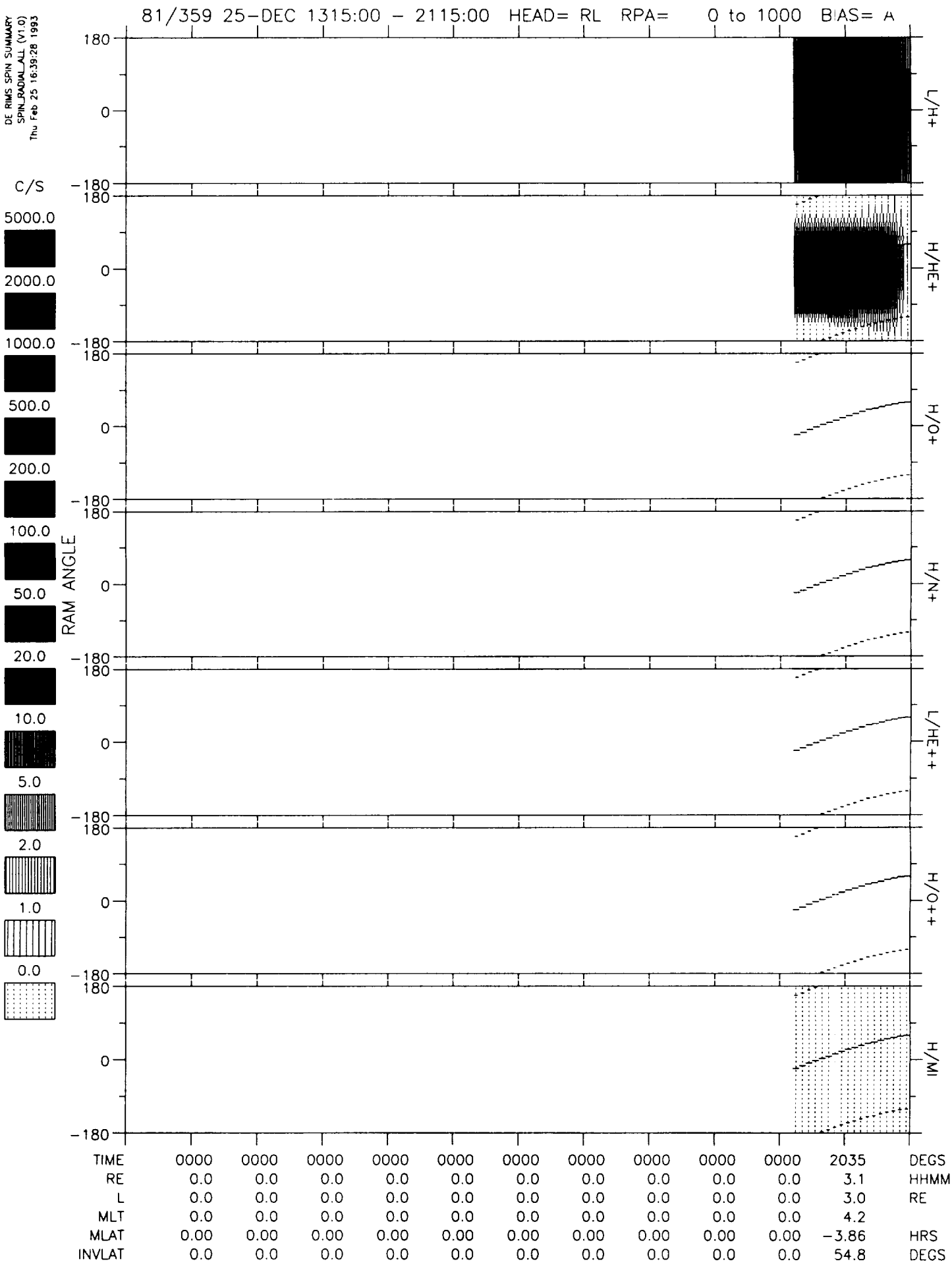

81/358 24-DEC 0230:00 - 1030:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 16:30:57 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0510 0550 0630 0710 0750 0830 0000 0000 DEGS
RE 0.0 0.0 0.0 4.6 4.7 4.5 4.1 3.4 2.3 0.0 0.0 HHMM
L 0.0 0.0 0.0 10.4 19.2 48.5 100.0 52.3 4.7 0.0 0.0 RE
MLT 0.0 0.0 0.0 5.4 5.8 6.5 10.0 16.0 16.8 0.0 0.0
MLAT 0.00 0.00 0.00 49.96 61.89 73.57 84.13 73.91 44.60 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 71.9 76.8 81.8 86.8 82.0 62.6 0.0 0.0 DEGS

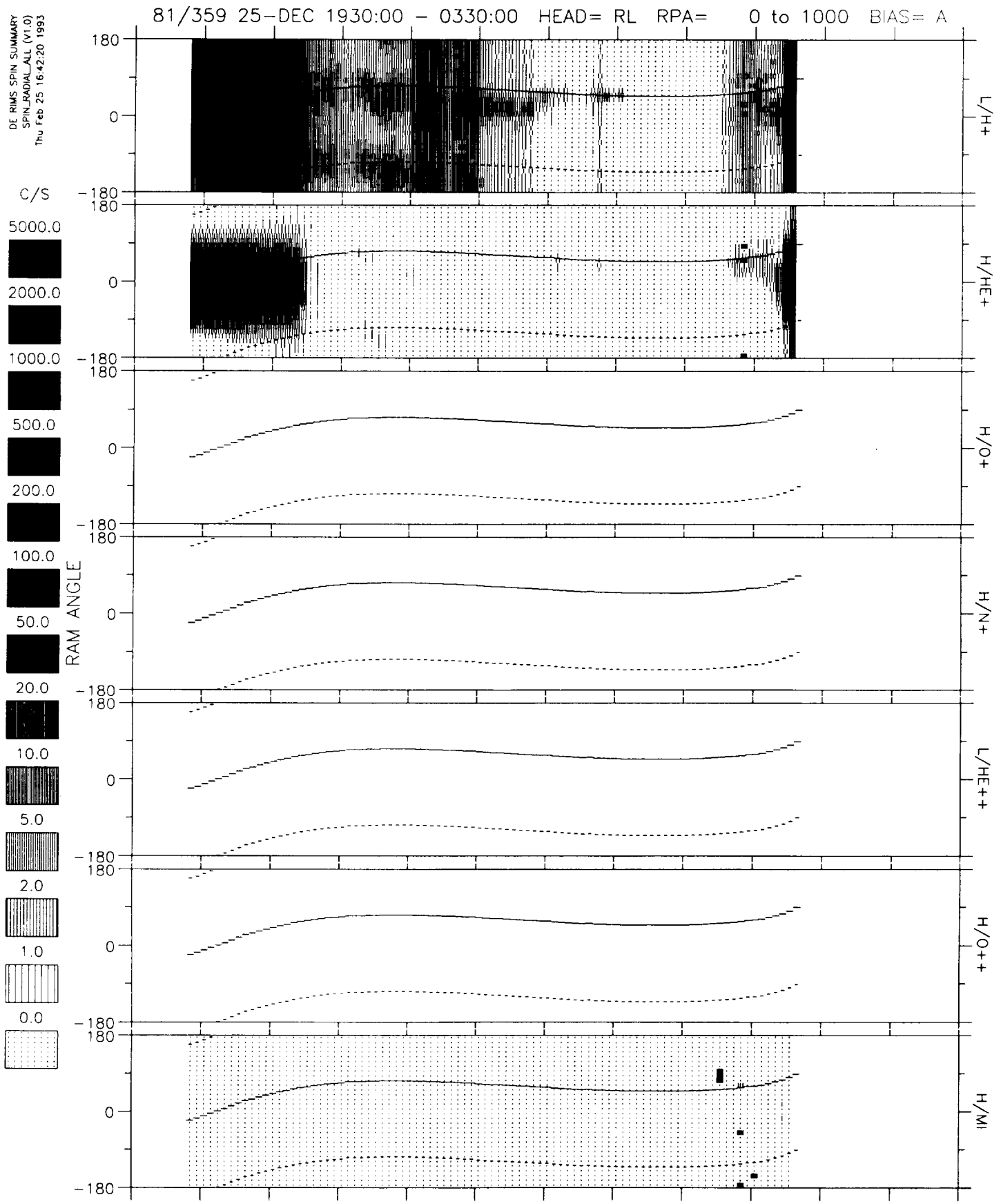

81/358 24-DEC 0930:00 - 1730:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 16:32:24 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0000 1050 1130 1210 1250 1330 1410 1450 1530 0000 0000 DEGS
RE 0.0 3.7 4.3 4.6 4.6 4.4 3.9 3.1 1.9 0.0 0.0 HHMM
L 0.0 5.3 8.7 13.8 22.6 42.3 100.0 47.5 3.5 0.0 0.0 RE
MLT 0.0 4.7 4.4 4.0 3.5 2.6 0.5 19.8 17.4 0.0 0.0
MLAT 0.00 32.45 45.18 54.76 62.96 70.73 77.73 74.60 44.21 0.00 0.00 HRS
INVLAT 0.0 64.2 70.2 74.4 77.9 81.2 84.4 81.7 57.6 0.0 0.0 DEGS

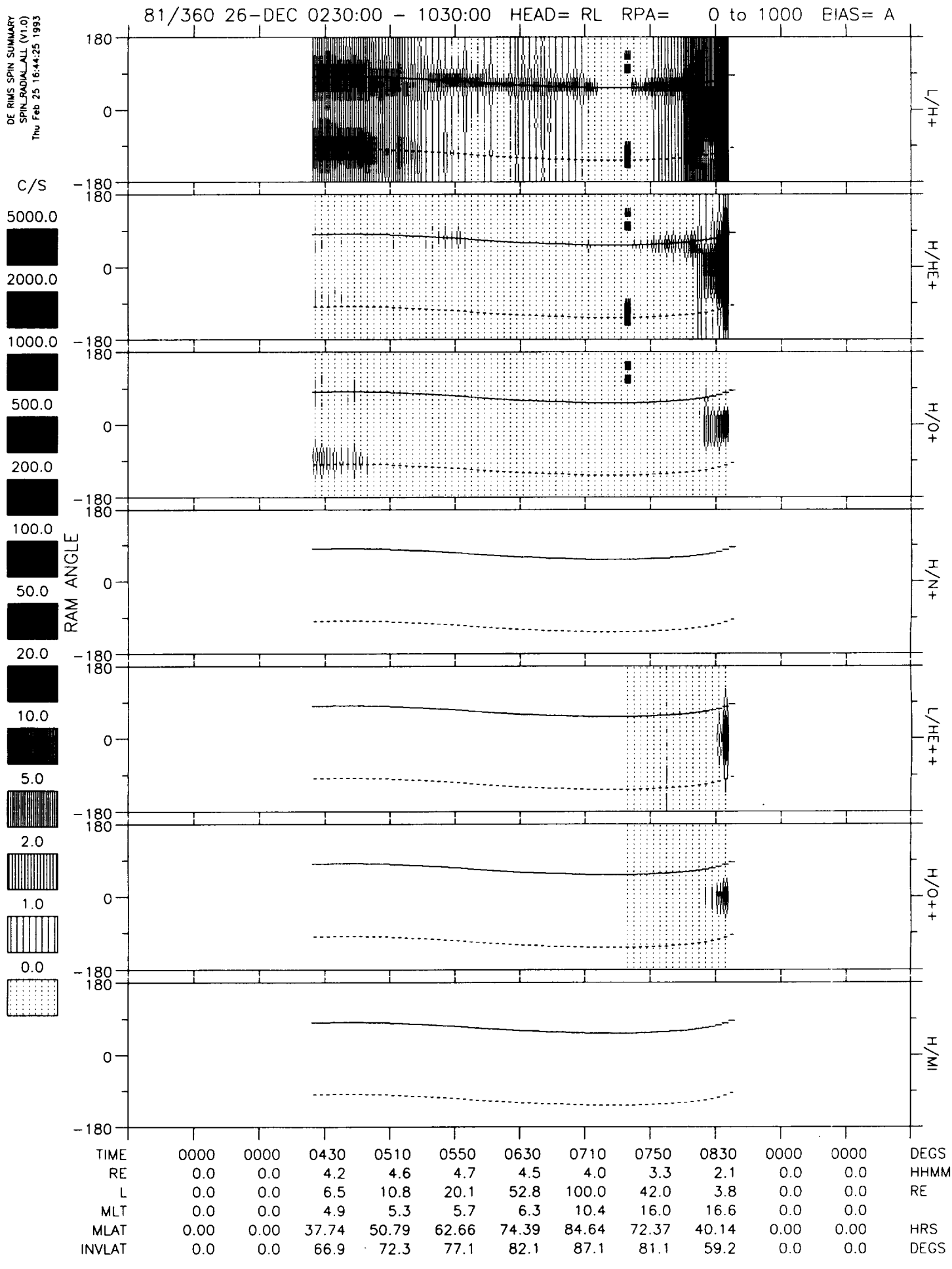

81/358 24-DEC 1615:00 - 0015:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 16:33:57 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 2215 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.1 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 10.2 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 15.7 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 62.84 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 71.8 0.0 0.0 DEGS

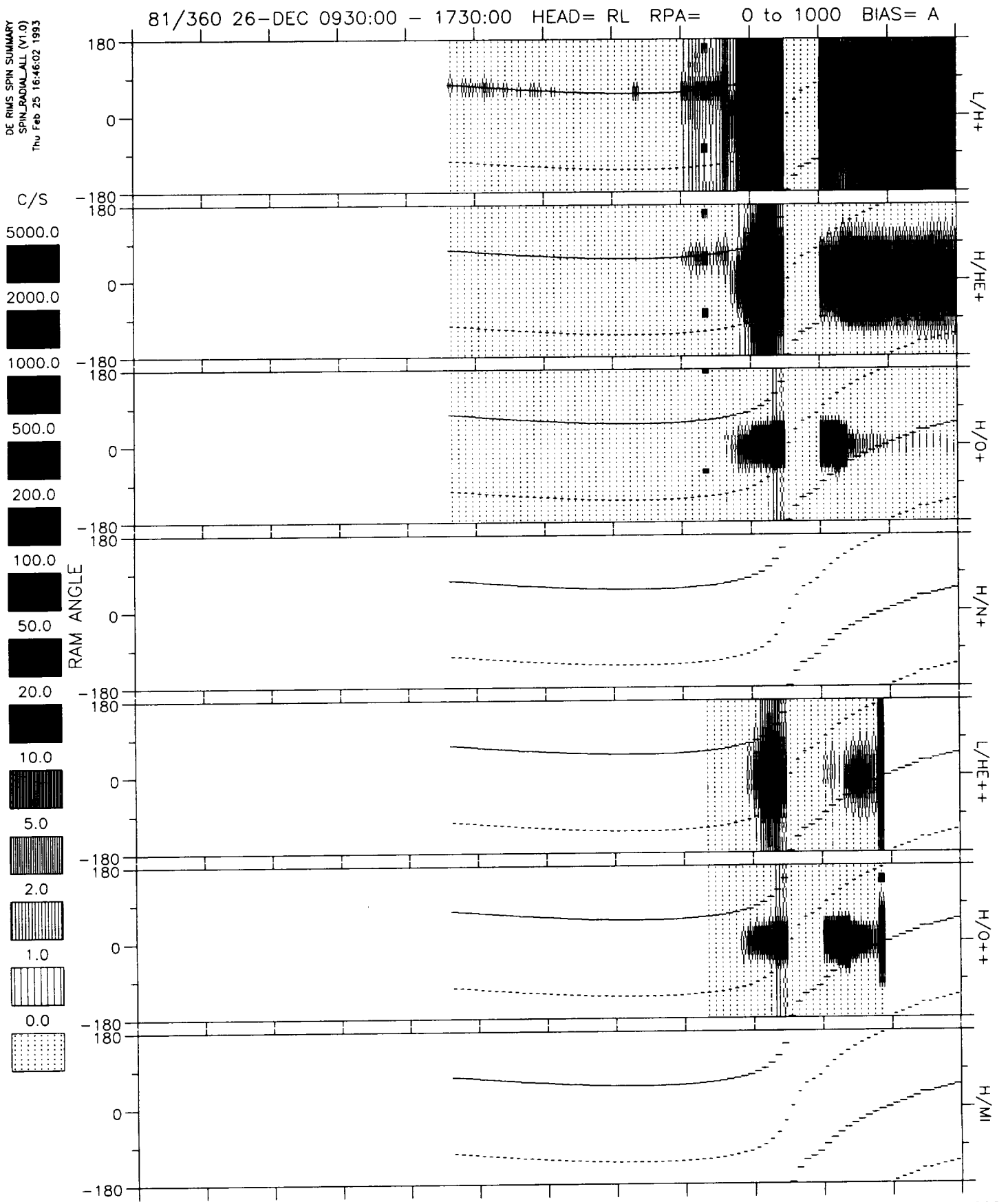

81/358 24-DEC 2300:00 - 0700:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 16:35:33 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0100 0140 0220 0300 0340 0420 0500 0000 0000 DEGS
RE 0.0 0.0 4.2 4.5 4.7 4.5 4.1 3.4 2.3 0.0 0.0 HHMM
L 0.0 0.0 5.1 7.5 11.6 21.0 56.6 85.3 6.4 0.0 0.0 RE
MLT 0.0 0.0 4.5 4.8 5.2 5.9 7.5 12.7 15.6 0.0 0.0
MLAT 0.00 0.00 25.93 39.16 51.09 62.78 74.36 77.05 52.15 0.00 0.00 HRS
INVLAT 0.0 0.0 63.8 68.6 72.9 77.4 82.4 83.8 66.6 0.0 0.0 DEGS


81/359 25-DEC 0600:00 – 1400:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 16:38:09 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0000 0000 0000 0000 0920 1000 1040 1120 1200 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.7 4.5 4.0 3.2 2.0 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 32.8 100.0 100.0 36.1 3.5 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 4.7 3.9 22.0 18.1 17.2 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 68.49 78.69 85.33 71.41 39.20 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 79.9 84.4 88.2 80.4 57.7 0.0 0.0 DEGS

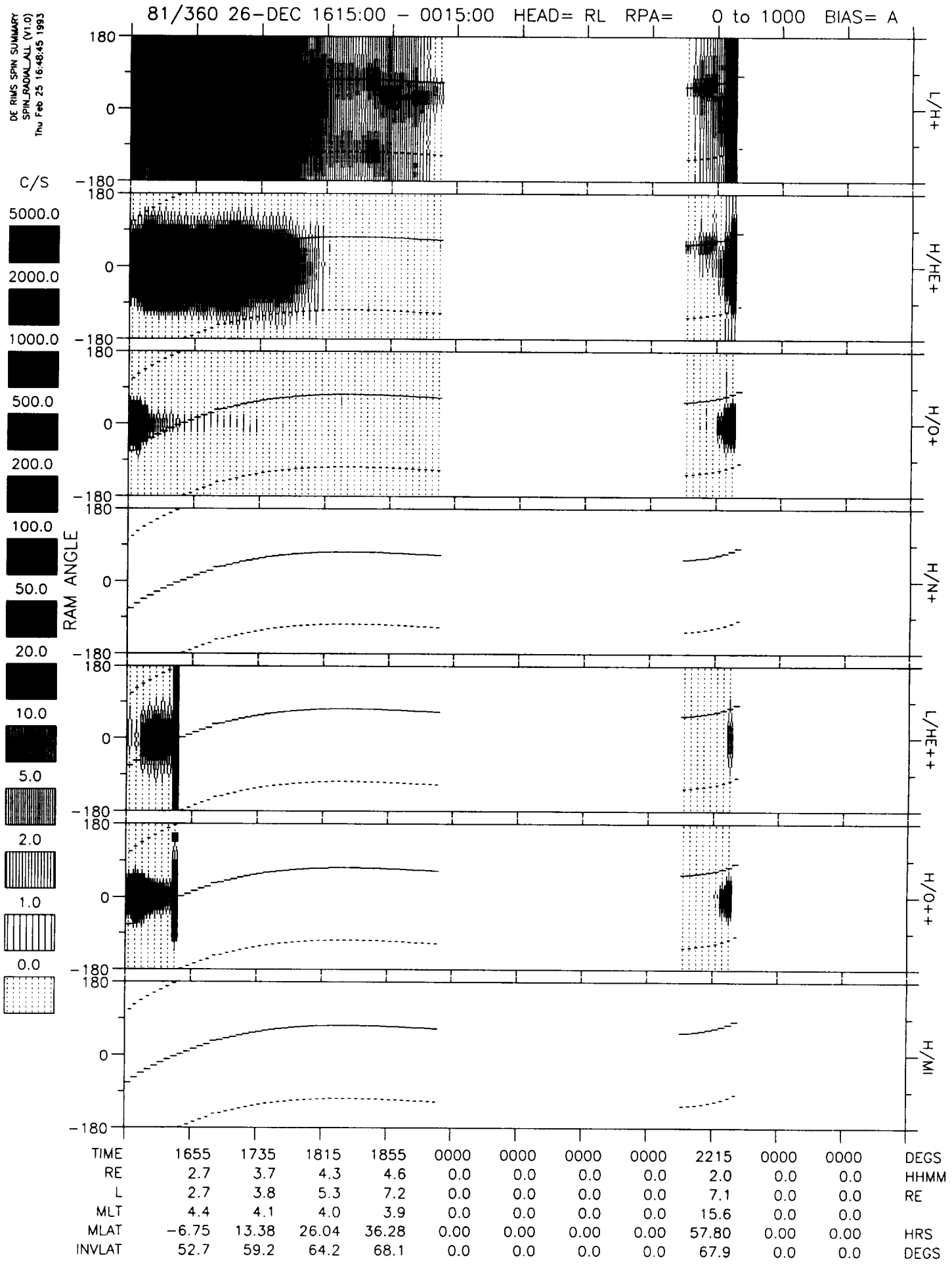

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 16:39:28 1993
81/359 25-DEC 1315:00 - 2115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 2035 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.1 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.0 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.2
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 -3.86 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 54.8 DEGS

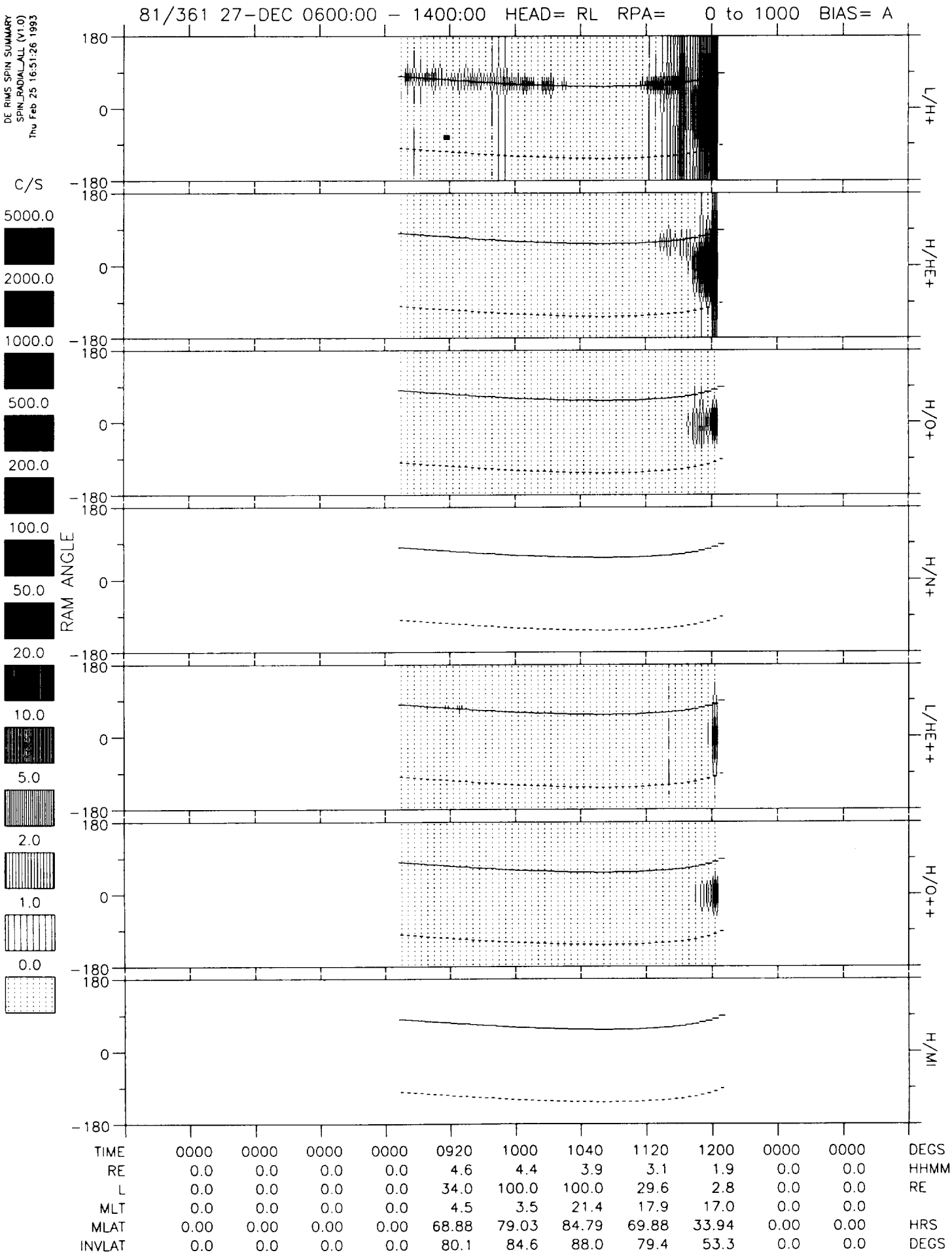

81/359 25-DEC 1930:00 - 0330:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 16:42:20 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 2010 2050 2130 2210 2250 2330 0010 0050 0130 0000 0000 DEGS
RE 2.4 3.4 4.1 4.5 4.7 4.5 4.2 3.5 2.4 0.0 0.0 HHMM
L 2.7 3.4 4.7 6.4 9.1 14.1 29.1 100.0 12.6 0.0 0.0 RE
MLT 4.3 4.2 4.2 4.3 4.5 4.8 5.6 8.6 14.6 0.0 0.0
MLAT ***** 4.06 19.89 32.22 43.41 54.67 66.99 79.39 63.98 0.00 0.00 HRS
INVLAT 52.4 57.1 62.5 66.8 70.7 74.6 79.3 85.0 73.7 0.0 0.0 DEGS

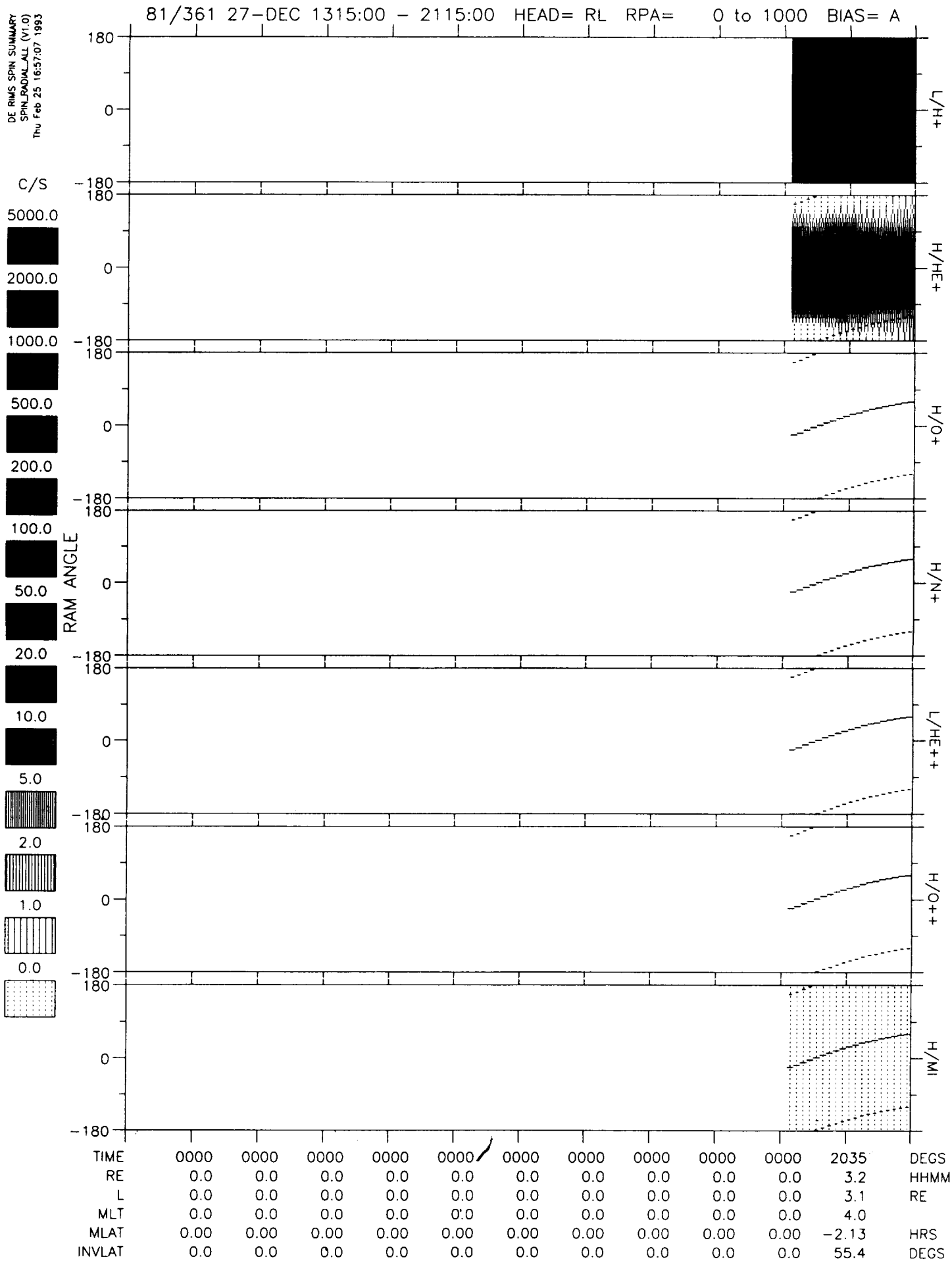

81/360 26-DEC 0230:00 - 1030:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 16:44:25 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0430 0510 0550 0630 0710 0750 0830 0000 0000 DEGS
RE 0.0 0.0 4.2 4.6 4.7 4.5 4.0 3.3 2.1 0.0 0.0 HHMM
L 0.0 0.0 6.5 10.8 20.1 52.8 100.0 42.0 3.8 0.0 0.0 RE
MLT 0.0 0.0 4.9 5.3 5.7 6.3 10.4 16.0 16.6 0.0 0.0
MLAT 0.00 0.00 37.74 50.79 62.66 74.39 84.64 72.37 40.14 0.00 0.00 HRS
INVLAT 0.0 0.0 66.9 72.3 77.1 82.1 87.1 81.1 59.2 0.0 0.0 DEGS

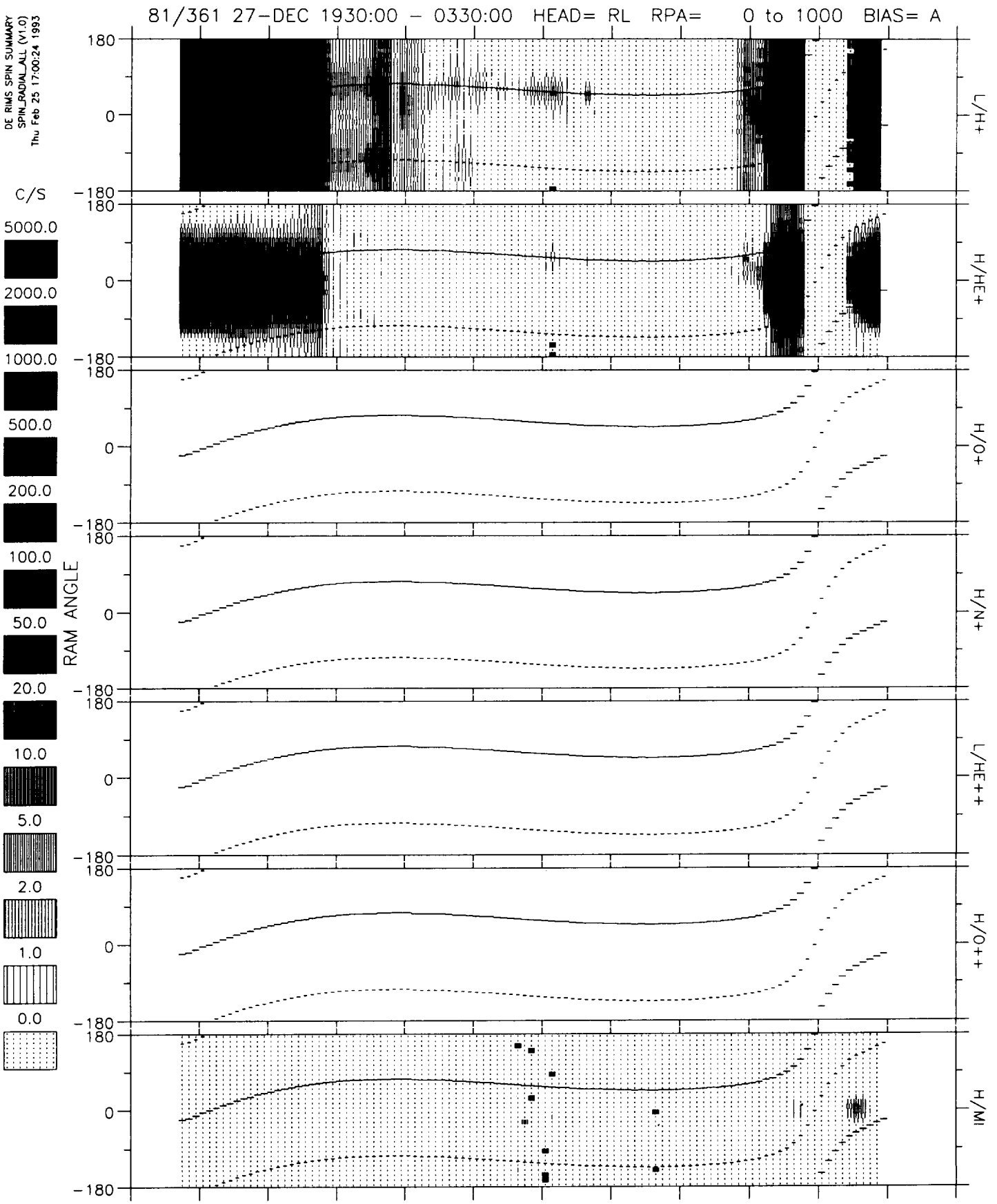

81/360 26-DEC 0930:00 – 1730:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 16:46:02 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 1250 1330 1410 1450 1530 1610 1650 DEGS
RE 0.0 0.0 0.0 0.0 4.6 4.4 3.9 3.0 1.8 1.3 2.6 HHMM
L 0.0 0.0 0.0 0.0 22.6 42.4 -0.0 39.5 2.7 19.1 2.6 RE
MLT 0.0 0.0 0.0 0.0 3.3 2.4 0.2 19.4 17.1 7.1 4.5
MLAT 0.00 0.00 0.00 0.00 62.99 70.80 77.87 73.58 38.64 ***** ***** HRS
INVLAT 0.0 0.0 0.0 0.0 77.9 81.2 -0.0 80.8 52.5 76.8 52.0 DEGS

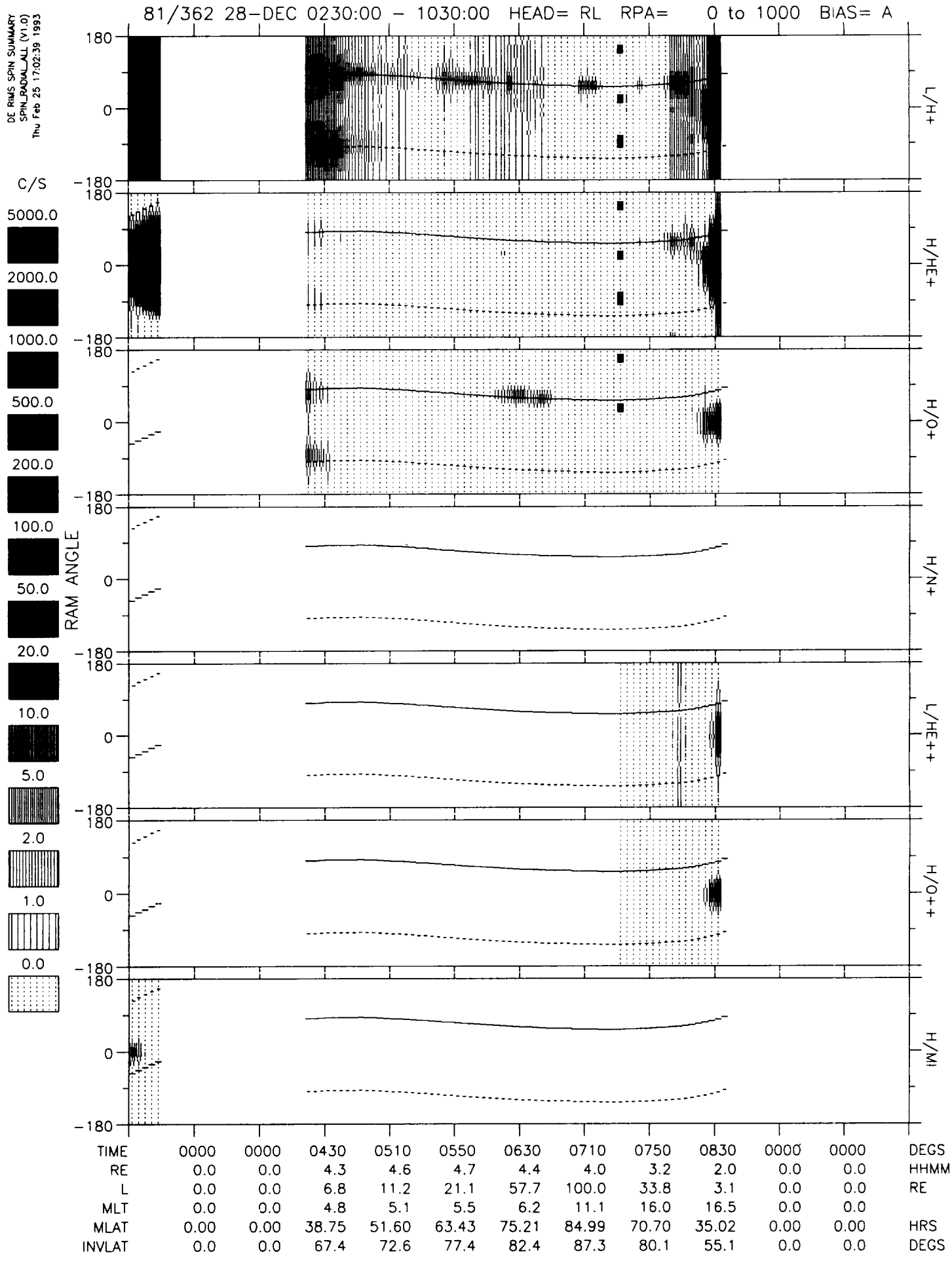
C-4

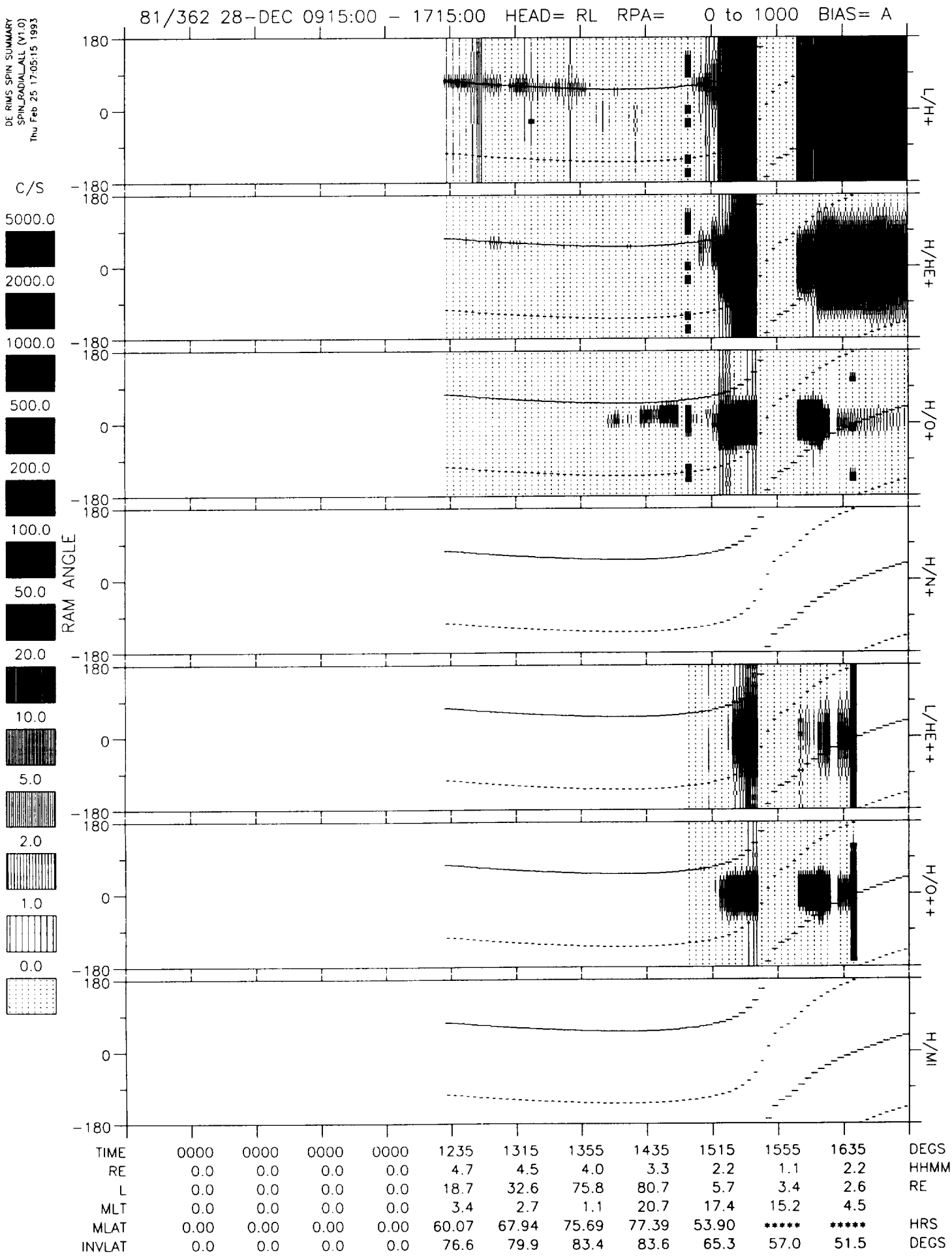

DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 16:48:45 1993
81/360 26-DEC 1615:00 - 0015:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1655 1735 1815 1855 0000 0000 0000 0000 2215 0000 0000 DEGS
RE 2.7 3.7 4.3 4.6 0.0 0.0 0.0 0.0 2.0 0.0 0.0 HHMM
L 2.7 3.8 5.3 7.2 0.0 0.0 0.0 0.0 7.1 0.0 0.0 RE
MLT 4.4 4.1 4.0 3.9 0.0 0.0 0.0 0.0 15.6 0.0 0.0
MLAT -6.75 13.38 26.04 36.28 0.00 0.00 0.00 0.00 57.80 0.00 0.00 HRS
INVLAT 52.7 59.2 64.2 68.1 0.0 0.0 0.0 0.0 67.9 0.0 0.0 DEGS

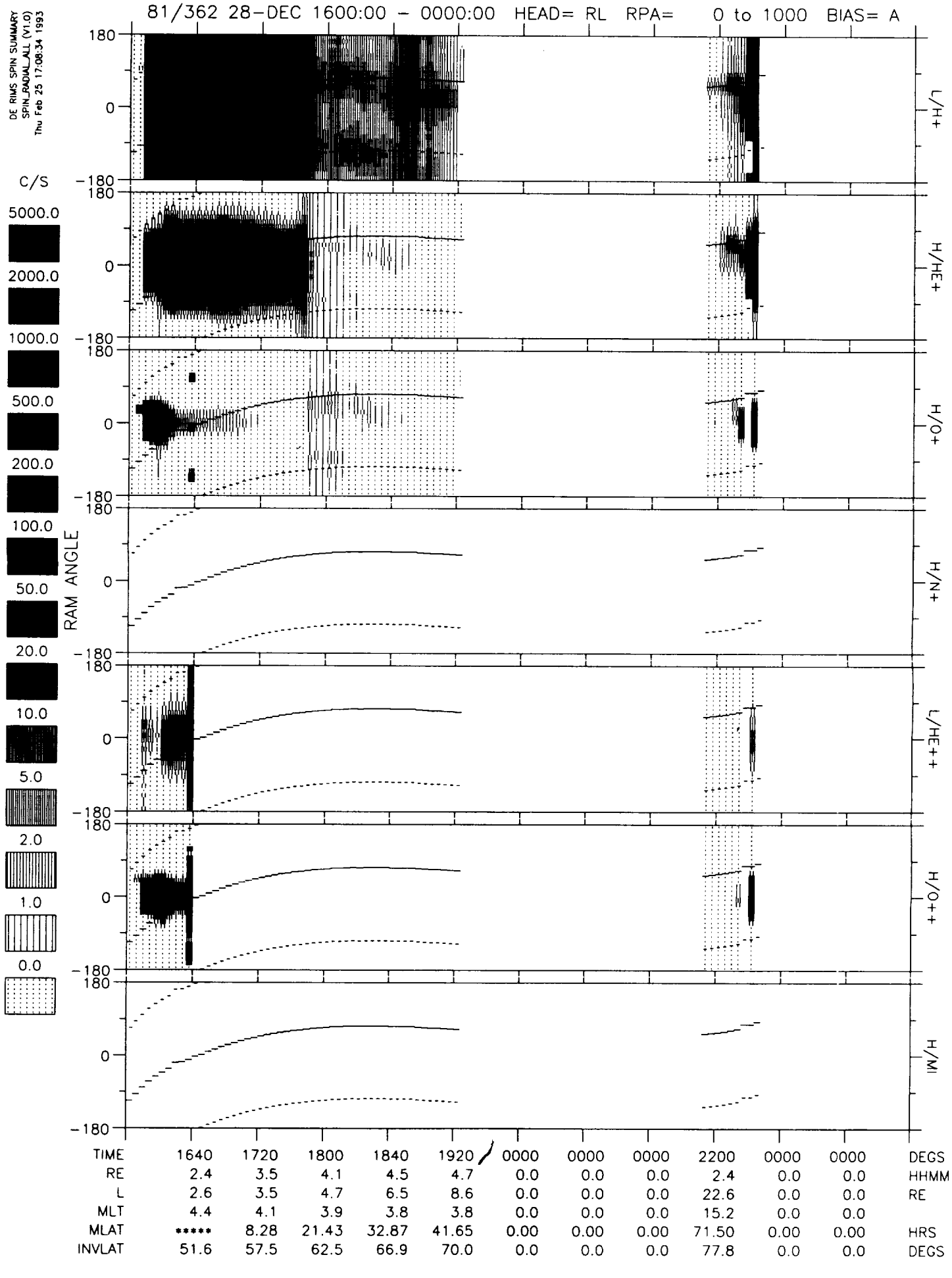

81/361 27-DEC 0600:00 - 1400:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 16:51:26 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0920 1000 1040 1120 1200 0000 0000 DEGS
RE 0.0 0.0 0.0 0.0 4.6 4.4 3.9 3.1 1.9 0.0 0.0 HHMM
L 0.0 0.0 0.0 0.0 34.0 100.0 100.0 29.6 2.8 0.0 0.0 RE
MLT 0.0 0.0 0.0 0.0 4.5 3.5 21.4 17.9 17.0 0.0 0.0
MLAT 0.00 0.00 0.00 0.00 68.88 79.03 84.79 69.88 33.94 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 0.0 80.1 84.6 88.0 79.4 53.3 0.0 0.0 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 16:57:07 1993
81/361 27-DEC 1315:00 - 2115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 2035 DEGS
RE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.2 HHMM
L 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.1 RE
MLT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.0
MLAT 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 -2.13 HRS
INVLAT 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 55.4 DEGS


81/361 27-DEC 1930:00 - 0330:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 17:00:24 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/NI
TIME 2010 2050 2130 2210 2250 2330 0010 0050 0130 0210 0000 DEGS
RE 2.5 3.5 4.2 4.6 4.7 4.5 4.1 3.4 2.3 1.1 0.0 HHMM
L 2.7 3.5 4.7 6.6 9.3 14.5 30.9 100.0 9.3 2.0 0.0 RE
MLT 4.1 4.0 4.1 4.2 4.4 4.7 5.5 9.0 14.7 16.7 0.0
MLAT ***** 5.36 19.90 32.81 43.98 55.36 67.82 79.77 60.29 ***** 0.00 HRS
INVLAT 52.6 57.7 62.6 67.0 70.8 74.8 79.6 85.2 70.8 44.4 0.0 DEGS


81/362 28-DEC 0230:00 - 1030:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 17:02:39 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/M+
TIME 0000 0000 0430 0510 0550 0630 0710 0750 0830 0000 0000 DEGS
RE 0.0 0.0 4.3 4.6 4.7 4.4 4.0 3.2 2.0 0.0 0.0 HHMM
L 0.0 0.0 6.8 11.2 21.1 57.7 100.0 33.8 3.1 0.0 0.0 RE
MLT 0.0 0.0 4.8 5.1 5.5 6.2 11.1 16.0 16.5 0.0 0.0
MLAT 0.00 0.00 38.75 51.60 63.43 75.21 84.99 70.70 35.02 0.00 0.00 HRS
INVLAT 0.0 0.0 67.4 72.6 77.4 82.4 87.3 80.1 55.1 0.0 0.0 DEGS


81/362 28-DEC 0915:00 - 1715:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 17:05:15 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0000 1235 1315 1355 1435 1515 1555 1635 DEGS
RE 0.0 0.0 0.0 0.0 4.7 4.5 4.0 3.3 2.2 1.1 2.2 HHMM
L 0.0 0.0 0.0 0.0 18.7 32.6 75.8 80.7 5.7 3.4 2.6 RE
MLT 0.0 0.0 0.0 0.0 3.4 2.7 1.1 20.7 17.4 15.2 4.5
MLAT 0.00 0.00 0.00 0.00 60.07 67.94 75.69 77.39 53.90 ***** ***** HRS
INVLAT 0.0 0.0 0.0 0.0 76.6 79.9 83.4 83.6 65.3 57.0 51.5 DEGS


DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 17:08:34 1993
81/362 28-DEC 1600:00 - 0000:00 HEAD= RL RPA= 0 to 1000 BIAS= A
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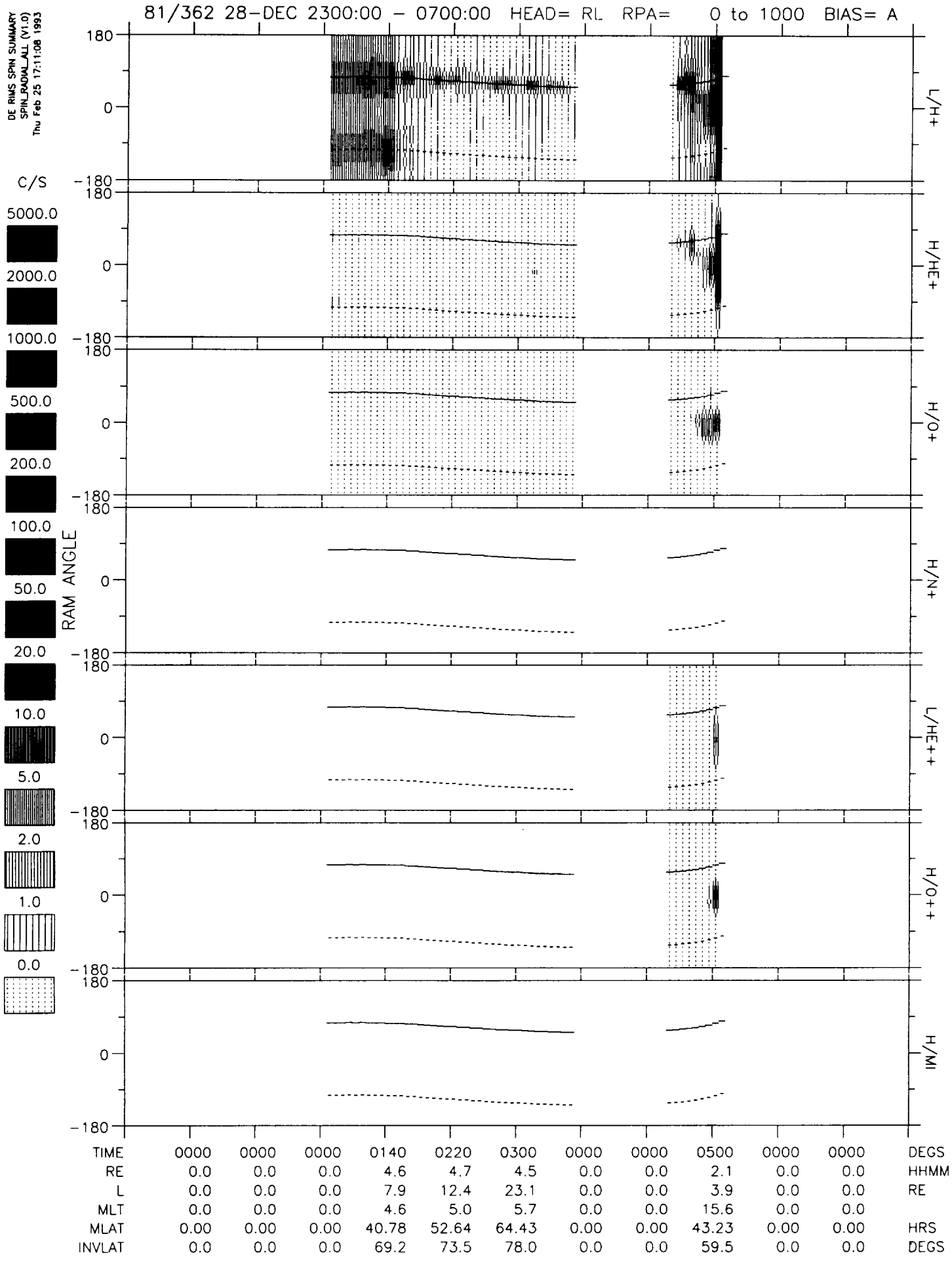
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 1640 1720 1800 1840 1920 0000 0000 0000 2200 0000 0000 DEGS
RE 2.4 3.5 4.1 4.5 4.7 0.0 0.0 0.0 2.4 0.0 0.0 HHMM
L 2.6 3.5 4.7 6.5 8.6 0.0 0.0 0.0 22.6 0.0 0.0 RE
MLT 4.4 4.1 3.9 3.8 3.8 0.0 0.0 0.0 15.2 0.0 0.0
MLAT ***** 8.28 21.43 32.87 41.65 0.00 0.00 0.00 71.50 0.00 0.00 HRS
INVLAT 51.6 57.5 62.5 66.9 70.0 0.0 0.0 0.0 77.8 0.0 0.0 DEGS


81/362 28-DEC 2300:00 - 0700:00 HEAD= RL RPA= 0 to 1000 BIAS= A
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C/S
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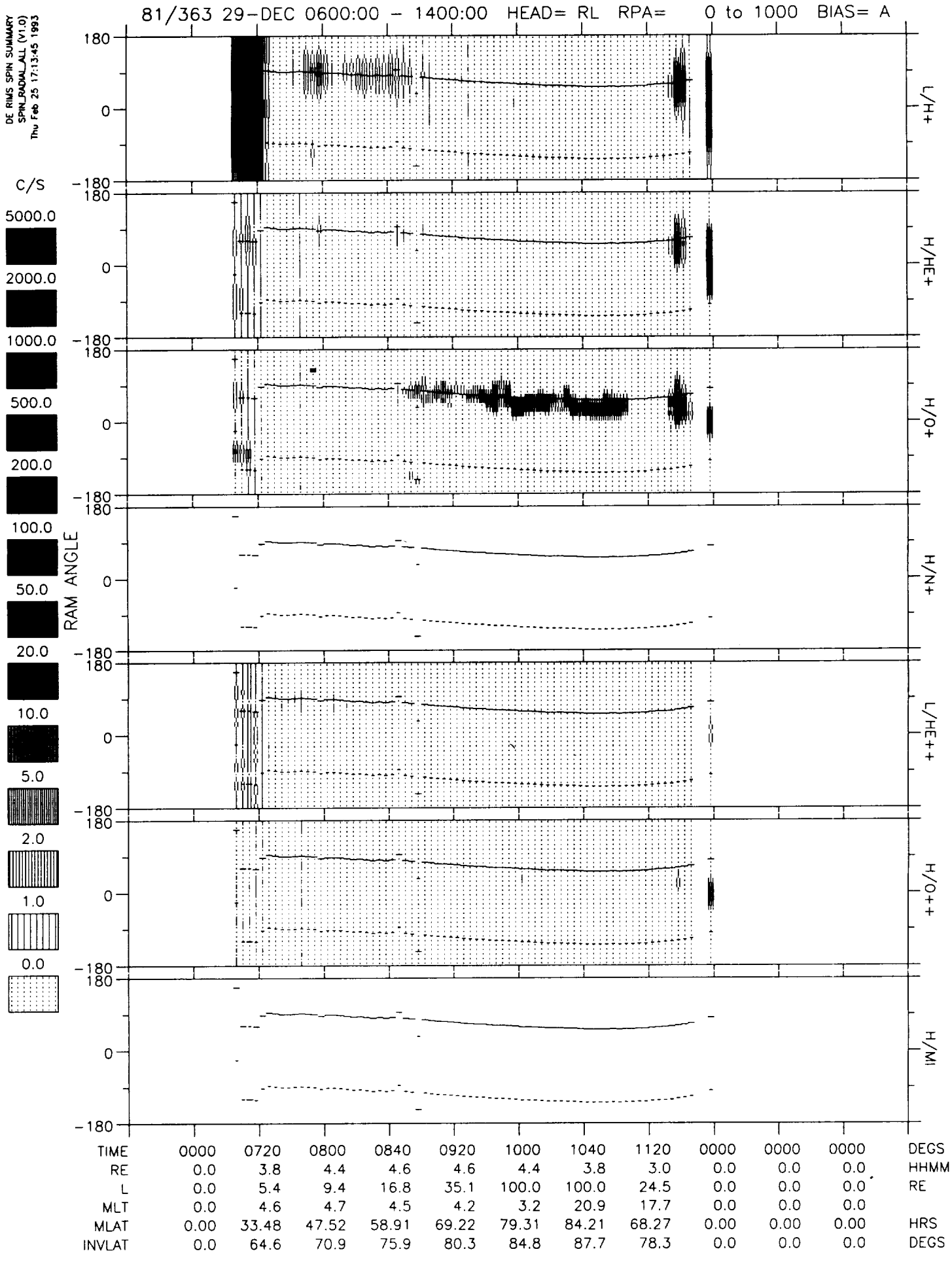
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0000 0140 0220 0300 0000 0000 0500 0000 0000 DEGS
RE 0.0 0.0 0.0 4.6 4.7 4.5 0.0 0.0 2.1 0.0 0.0 HHMM
L 0.0 0.0 0.0 7.9 12.4 23.1 0.0 0.0 3.9 0.0 0.0 RE
MLT 0.0 0.0 0.0 4.6 5.0 5.7 0.0 0.0 15.6 0.0 0.0
MLAT 0.00 0.00 0.00 40.78 52.64 64.43 0.00 0.00 43.23 0.00 0.00 HRS
INVLAT 0.0 0.0 0.0 69.2 73.5 78.0 0.0 0.0 59.5 0.0 0.0 DEGS


81/363 29-DEC 0600:00 - 1400:00 HEAD= RL RPA= 0 to 1000 BIAS= A
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Thu Feb 25 17:13:45 1993
C/S
5000.0
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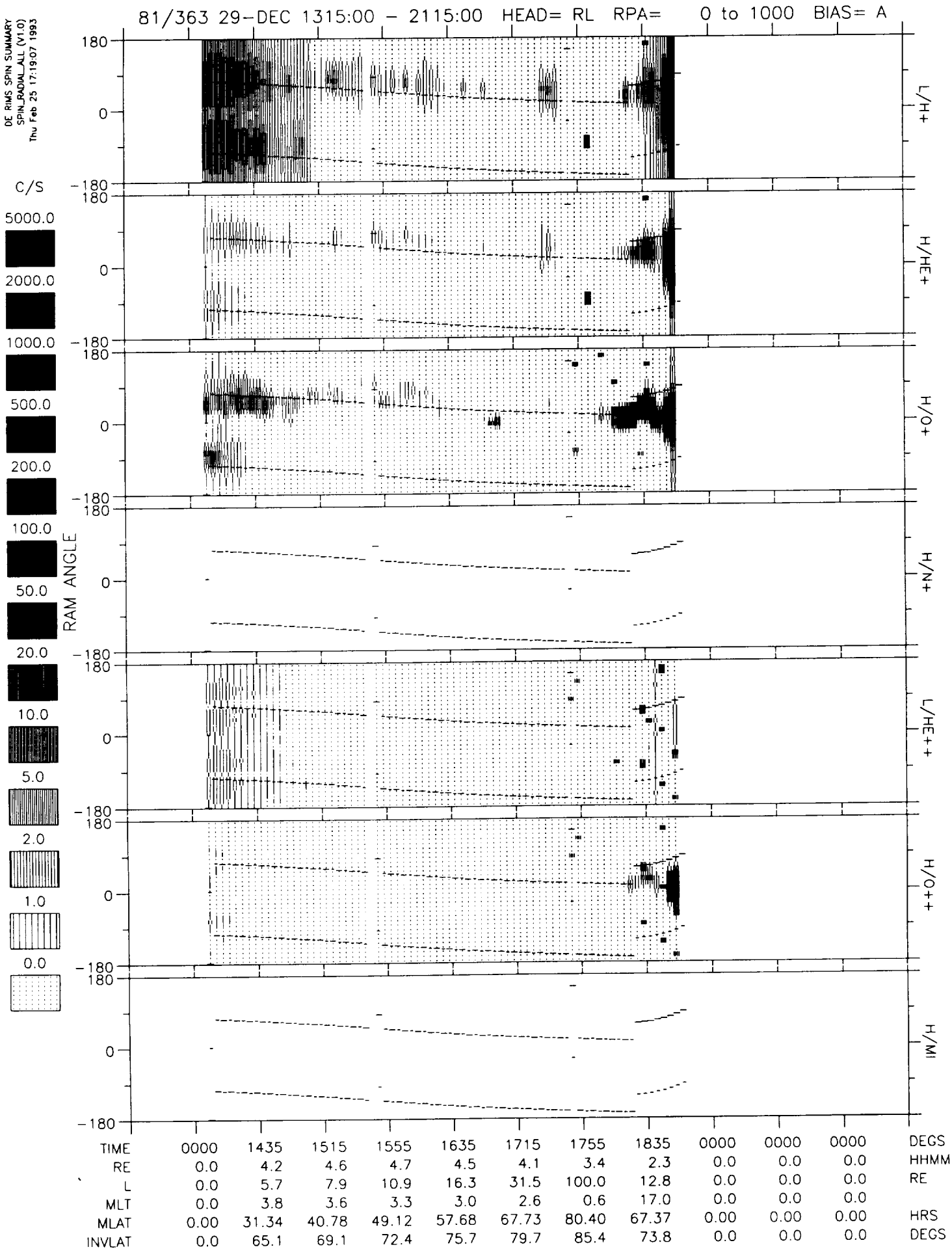
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0720 0800 0840 0920 1000 1040 1120 0000 0000 0000 DEGS
RE 0.0 3.8 4.4 4.6 4.6 4.4 3.8 3.0 0.0 0.0 0.0 HHMM
L 0.0 5.4 9.4 16.8 35.1 100.0 100.0 24.5 0.0 0.0 0.0 RE
MLT 0.0 4.6 4.7 4.5 4.2 3.2 20.9 17.7 0.0 0.0 0.0
MLAT 0.00 33.48 47.52 58.91 69.22 79.31 84.21 68.27 0.00 0.00 0.00 HRS
INVLAT 0.0 64.6 70.9 75.9 80.3 84.8 87.7 78.3 0.0 0.0 0.0 DEGS


81/363 29-DEC 1315:00 - 2115:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 17:19:07 1993
C/S
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1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 1435 1515 1555 1635 1715 1755 1835 0000 0000 0000 DEGS
RE 0.0 4.2 4.6 4.7 4.5 4.1 3.4 2.3 0.0 0.0 0.0 HHMM
L 0.0 5.7 7.9 10.9 16.3 31.5 100.0 12.8 0.0 0.0 0.0 RE
MLT 0.0 3.8 3.6 3.3 3.0 2.6 0.6 17.0 0.0 0.0 0.0
MLAT 0.00 31.34 40.78 49.12 57.68 67.73 80.40 67.37 0.00 0.00 0.00 HRS
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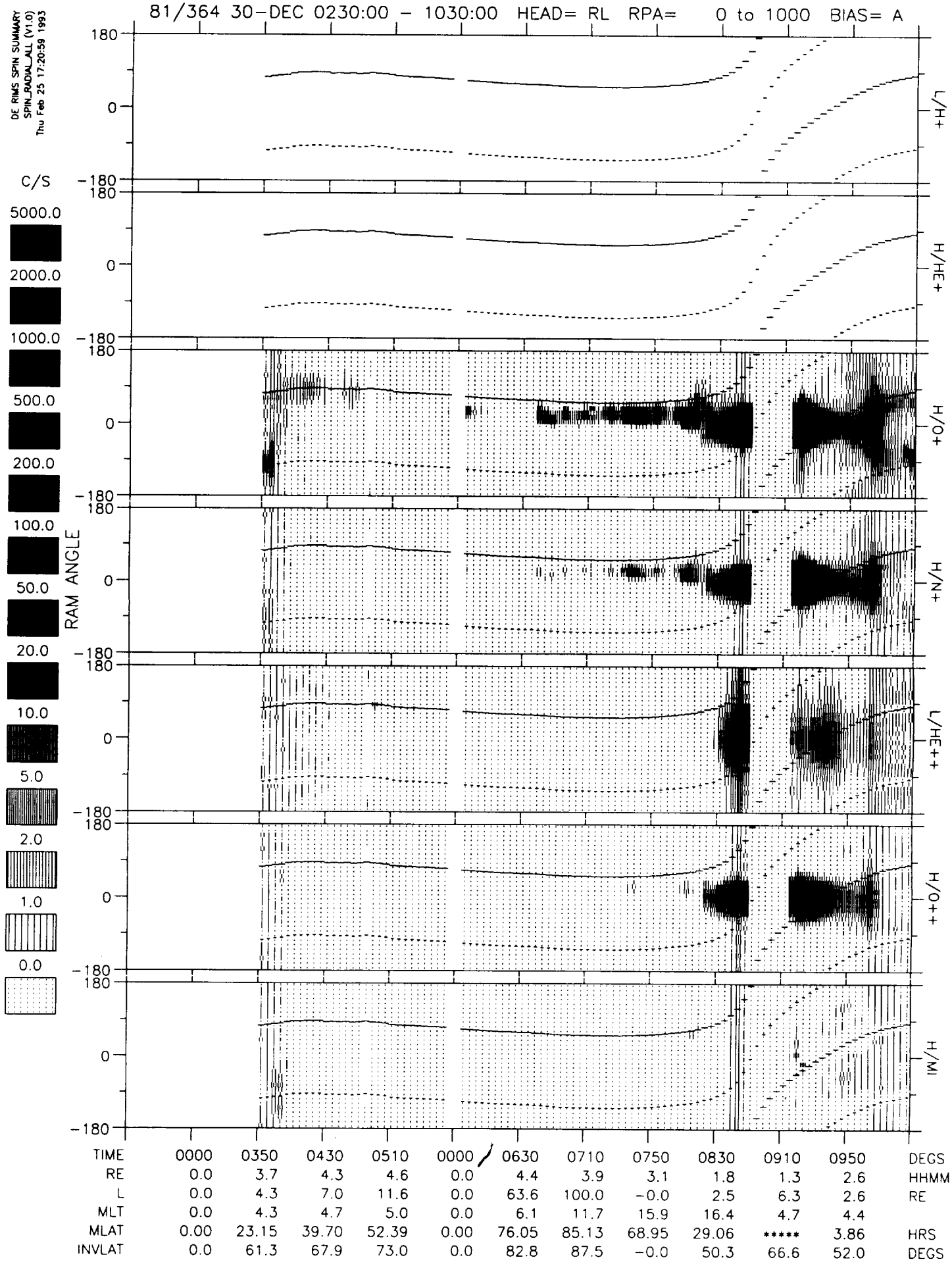
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 17:20:59 1993
81/364 30-DEC 0230:00 - 1030:00 HEAD= RL RPA= 0 to 1000 BIAS= A
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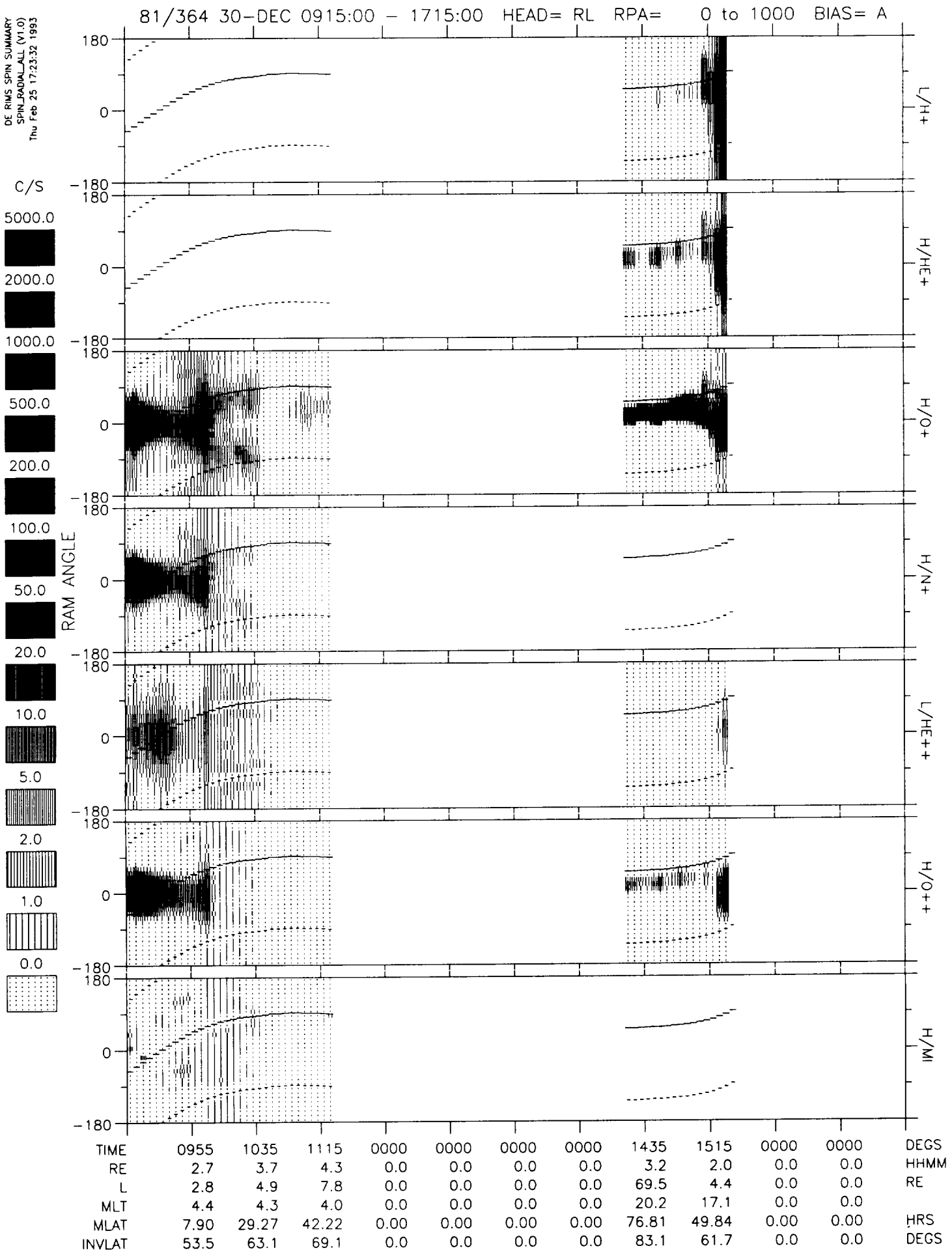
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0350 0430 0510 0000 0630 0710 0750 0830 0910 0950 DEGS
RE 0.0 3.7 4.3 4.6 0.0 4.4 3.9 3.1 1.8 1.3 2.6 HHMM
L 0.0 4.3 7.0 11.6 0.0 63.6 100.0 -0.0 2.5 6.3 2.6 RE
MLT 0.0 4.3 4.7 5.0 0.0 6.1 11.7 15.9 16.4 4.7 4.4
MLAT 0.00 23.15 39.70 52.39 0.00 76.05 85.13 68.95 29.06 ***** 3.86 HRS
INVLAT 0.0 61.3 67.9 73.0 0.0 82.8 87.5 -0.0 50.3 66.6 52.0 DEGS


81/364 30-DEC 0915:00 – 1715:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
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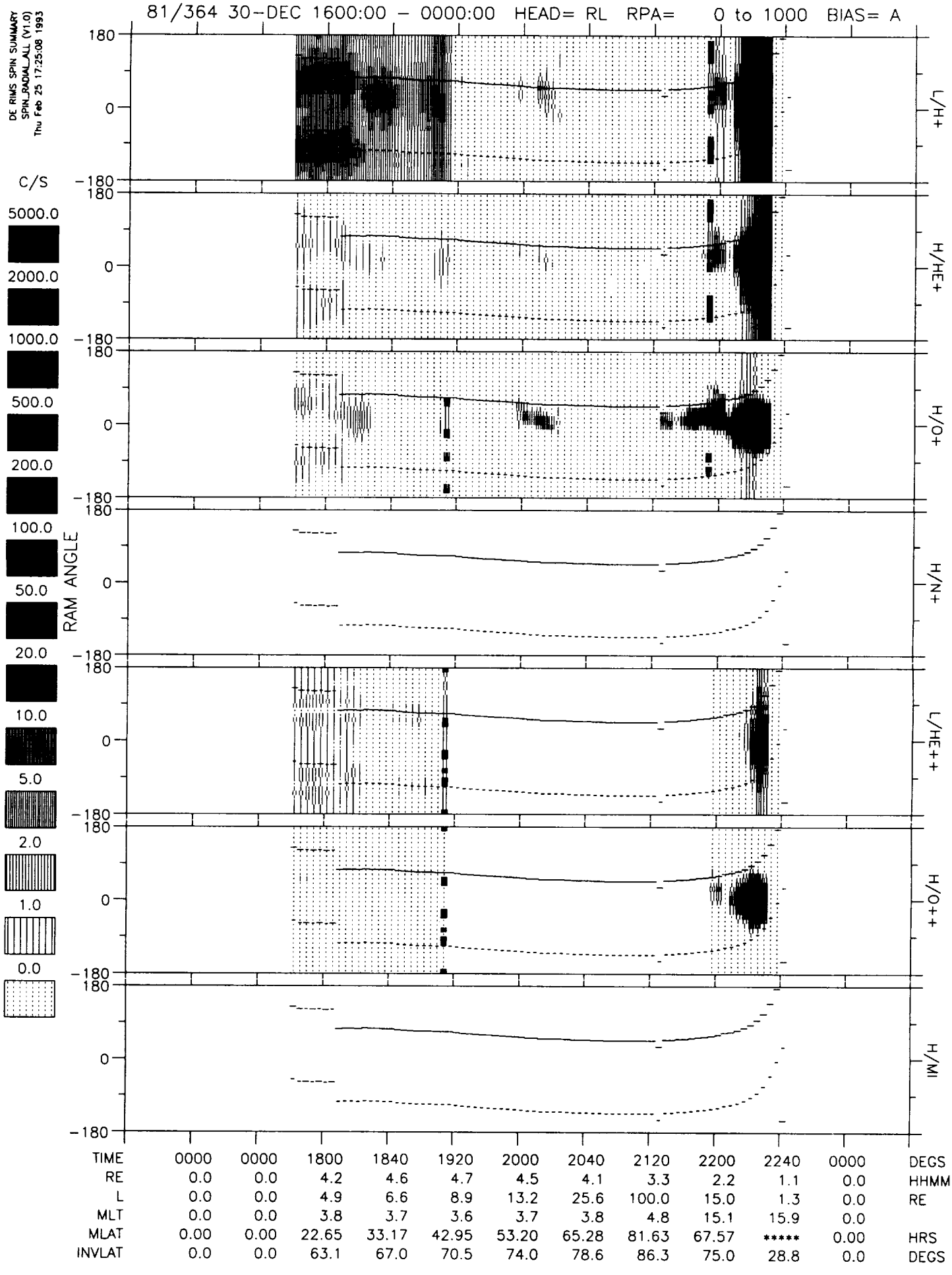
Thu Feb 25 17:23:32 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0955 1035 1115 0000 0000 0000 0000 1435 1515 0000 0000 DEGS
RE 2.7 3.7 4.3 0.0 0.0 0.0 0.0 3.2 2.0 0.0 0.0 HHMM
L 2.8 4.9 7.8 0.0 0.0 0.0 0.0 69.5 4.4 0.0 0.0 RE
MLT 4.4 4.3 4.0 0.0 0.0 0.0 0.0 20.2 17.1 0.0 0.0
MLAT 7.90 29.27 42.22 0.00 0.00 0.00 0.00 76.81 49.84 0.00 0.00 HRS
INVLAT 53.5 63.1 69.1 0.0 0.0 0.0 0.0 83.1 61.7 0.0 0.0 DEGS


81/364 30-DEC 1600:00 - 0000:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 17:25:08 1993
C/S
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1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 1800 1840 1920 2000 2040 2120 2200 2240 0000 DEGS
RE 0.0 0.0 4.2 4.6 4.7 4.5 4.1 3.3 2.2 1.1 0.0 HHMM
L 0.0 0.0 4.9 6.6 8.9 13.2 25.6 100.0 15.0 1.3 0.0 RE
MLT 0.0 0.0 3.8 3.7 3.6 3.7 3.8 4.8 15.1 15.9 0.0
MLAT 0.00 0.00 22.65 33.17 42.95 53.20 65.28 81.63 67.57 ***** 0.00 HRS
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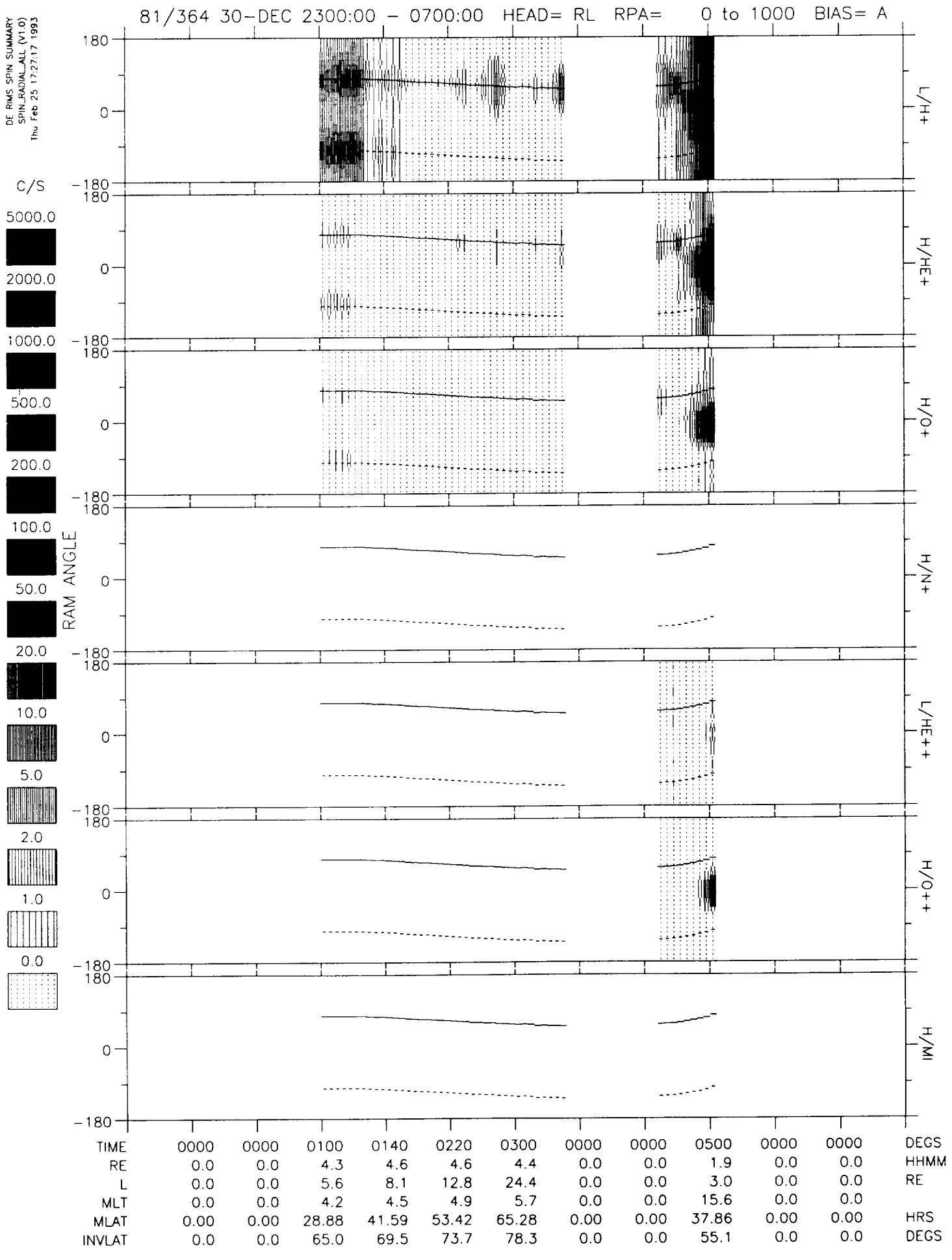
81/364 30-DEC 2300:00 - 0700:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
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Thu Feb 25 17:27:17 1993
C/S
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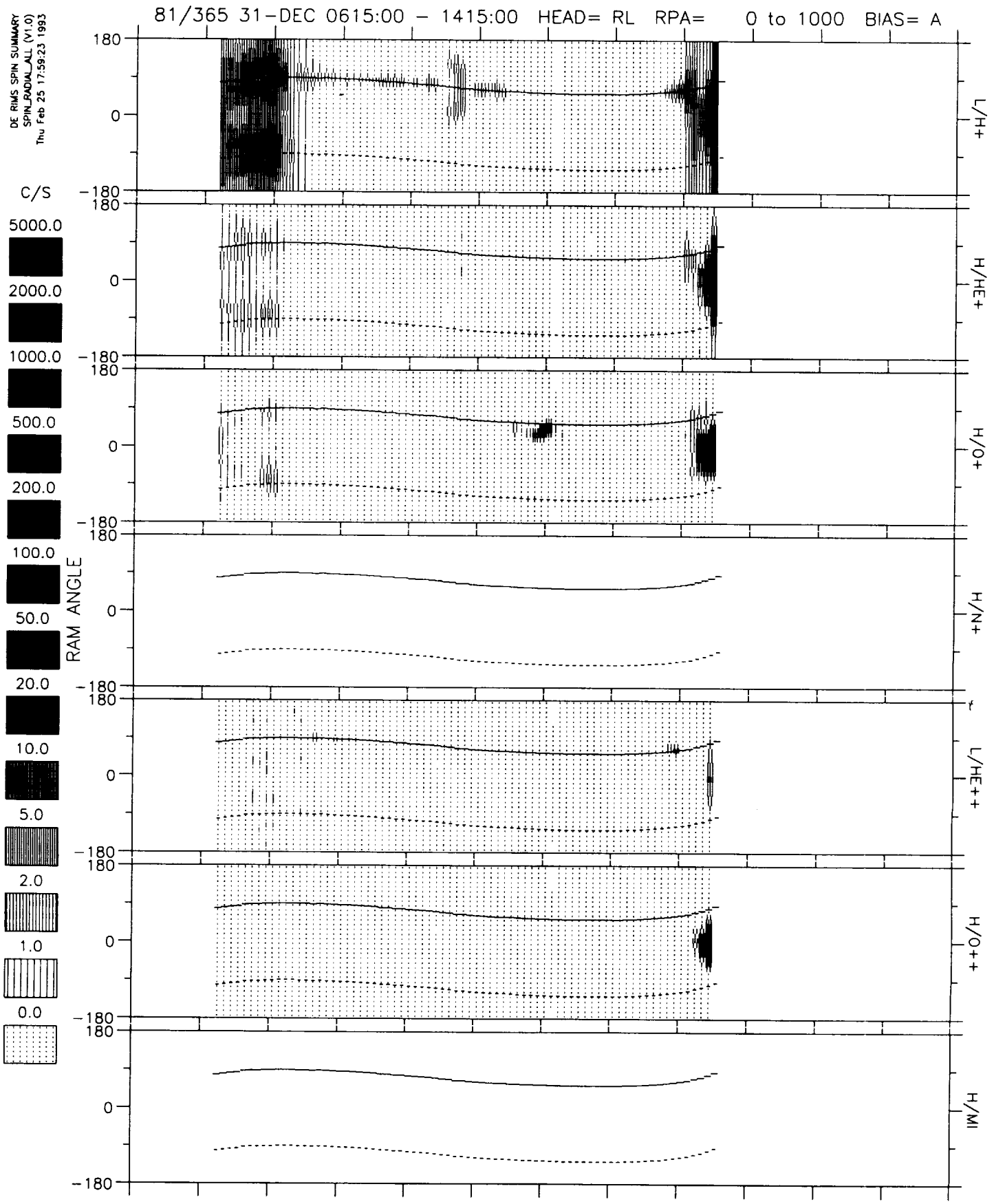
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0000 0100 0140 0220 0300 0000 0000 0500 0000 0000 DEGS
RE 0.0 0.0 4.3 4.6 4.6 4.4 0.0 0.0 1.9 0.0 0.0 HHMM
L 0.0 0.0 5.6 8.1 12.8 24.4 0.0 0.0 3.0 0.0 0.0 RE
MLT 0.0 0.0 4.2 4.5 4.9 5.7 0.0 0.0 15.6 0.0 0.0
MLAT 0.00 0.00 28.88 41.59 53.42 65.28 0.00 0.00 37.86 0.00 0.00 HRS
INVLAT 0.0 0.0 65.0 69.5 73.7 78.3 0.0 0.0 55.1 0.0 0.0 DEGS

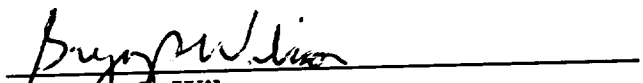

81/365 31-DEC 0615:00 - 1415:00 HEAD= RL RPA= 0 to 1000 BIAS= A
DE RIMS SPIN SUMMARY
SPIN_RADIAL_ALL (V1.0)
Thu Feb 25 17:59:23 1993
C/S
5000.0
2000.0
1000.0
500.0
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.0
RAM ANGLE
180
0
-180
L/H+
H/HE+
H/O+
H/N+
L/HE++
H/O++
H/MI
TIME 0000 0735 0815 0855 0935 1015 1055 1135 0000 0000 0000 DEGS
RE 0.0 4.1 4.5 4.7 4.5 4.2 3.5 2.4 0.0 0.0 0.0 HHMM
L 0.0 7.0 12.0 22.3 52.6 100.0 100.0 7.9 0.0 0.0 0.0 RE
MLT 0.0 4.5 4.5 4.3 3.8 1.6 18.7 17.1 0.0 0.0 0.0
MLAT 0.00 40.13 52.59 63.27 73.36 83.10 78.85 55.09 0.00 0.00 0.00 HRS
INVLAT 0.0 67.7 73.2 77.8 82.1 86.7 84.7 69.2 0.0 0.0 0.0 DEGS

APPROVAL

DYNAMICS EXPLORER 1, RETARDING ION MASS SPECTROMETER SUMMARY SPECTROGRAMS--81/280 TO 81/365 SPIN-TIME SPECTROGRAMS FOR H^+, HE^+, O^+, N^+, O^{++}, M/Z=2, AND MOLECULAR IONS

DE 1/RIMS Investigators

This report has been reviewed for technical accuracy and contains no information concerning national security or nuclear energy activities or programs. The report, in its entirety, is unclassified.



Gregory S. Wilson
Director, Space Sciences Laboratory

REPORT DOCUMENTATION PAGE

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	July 1994	Technical Memorandum

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Dynamics Explorer 1, Retarding Ion Mass Spectrometer
Summary Spectrograms--81/280 to 81/365 Spin-Time
Spectrograms for H^+, He^+, O^+, N^+, O^{++}, M/Z=2, and Molecular Ions

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Marshall Space Flight Center, AL 35812

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12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

The Retarding Ion Mass Spectrometer (RIMS) experiment onboard the Dynamics Explorer 1 (DE 1) satellite was designed to perform energy and mass-per-charge analysis on low-energy ions (<50 eV) with mass/charge ratios ranging from 1 to 40 amu/Z. The DE 1 satellite, carrying the RIMS experiment, was launched into an elliptical polar orbit on August 3, 1981. The ~7.5 hour orbit has perigee of 675 km altitude and apogee of 24,875 km altitude. This document, and those that follow in this series, contains summary RIMS data spectrograms for each orbit for which RIMS data are available. The RIMS instrument began returning science data on day 280 of 1981 and continued to return usable data until the end of the DE mission in March 1991. It should be noted that studies of the RIMS data set should be conducted only with a thorough awareness of the material described in the introduction section presented here, or in collaboration with a scientist familiar with RIMS data analysis.

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